BAHRIA CLASSIFICATION SOCIETY

RULES FOR STATUTORY SURVEY OF SEA-GOING SHIPS

Part 1-Survey Regulation

July 2022

This latest edition incorporates all rule changes. The latest revisions are shown with a vertical line. The section title is framed if the section is revised completely. Changes after the publication of the rule are written in red color.

Unless otherwise specified, these rules apply to ships for which the date of contract for construction is on or after July 2022.

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Part I – Survey Regulations – July 2022 of Rules for Statutory Survey of Sea-going Ships were approved by BCS . Chief Executive Officer(CEO) on 16 June 2022 and enter into force on 1 July 2022

From the entry into force, the requirements of *Part I – Survey Regulations* apply to all sea-going ships on which BCS performs survey and statutory services as a recognized organization on behalf of Flag Administrations.

BCS, 06/2022

CONTENTS

1 GENERAL

1.1 Scope of Application

1.1.1 *Rules for Statutory Survey of Sea-going Ships* apply to all sea-going ships on which BCS performs technical survey and statutory services as a recognized organization on behalf of Flag Administrations , further on referred to as statutory survey . BCS issues , renews and confirms ship's documents as described in *Part I – Survey Regulations*.

1.1.2 *Rules for Statutory Survey of Sea-going Ships* consist of separate parts and include the requirements of:

- *International Convention for the Safety of Life at Sea, 1974 (SOLAS 1974), as amended;*
- *International Convention on Load Lines, 1966 (LL 66)* and as modified by its *1988 Protocol*, as amended *(LL 1966/1988), as amended;*
- *International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL 73/78*), as amended;
- *International Convention on Tonnage Measurement of Ships, 1969 (TONNAGE 1969);*
- *Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG 1972),* as amended;
- *International Convention for the Control and Management of Ship's Ballast Water Sediments, 2004 (BWM Convention);*
- *International Convention for Safe Containers, 1972 (CSC 1972),* as amended*;*
- *ILO Conventions concerning Crew Accommodation on Board Ship*, C 92 and C 133;
- *ILO Maritime Labour Convention (MLC 2006) ILO Occupational Safety and Health (Dock Work) Convention, 1979, C 152;*
- *Code for Construction and Equipment of Mobile Offshore Drilling Units (MODU 1989);*
- *Code for Construction and Equipment of Mobile Offshore Drilling Units (MODU 2009);*
- *International Code for Ships Operating in Polar Waters (Polar Code).*

The scope of requirements can be changed, limited or widened to the satisfaction of the Flag *Administration.*

1.1.3 *Part I – Survey Regulations* includes the general policy relating to statutory surveys performed BCSn sea-going ships.

1.2 Definitions

In the present Part of the *Rules*, the following definitions have been adopted; they are also applicable to other Parts of the *Rules*.

Note: Unless stipulated otherwise, wherever in the *Rules* reference is made to distances such as tank length, height, width, ship length, subdivision length, waterline length etc., those distances shall be taken as moulded dimensions.

Additional audit – the examination of the effectiveness of the corrective actions performed by the Company with respect to major non-conformities, non-conformities or changes introduced in the safety management system. The audit may also be aimed at more thorough reviewing of the selected fragments or the entire safety management system operation and establishing corrective actions, e.g. after inspection of the BCS.

Anniversary date – day and the month of each year which will correspond to the date of expiry of the relevant certificate.

Annual/Intermediate audit – a periodical assessment aimed at ascertaining that the effective operation of the safety management system is maintained and the modifications introduced are effective and comply with the requirements of the *ISM Code.*

Another cargo ship – a cargo ship of 500 gross tonnage and over which is not a tanker ship, a chemical ship, a bulk carrier or a high-speed craft.

Bulk carrier – a ship usually with one deck, wing and bilge tanks within cargo space, specially intended for the carriage of bulk dry cargoes.

Cargo ship – any ship which is not a passenger ship.

Certificate – one of certificates issued for a ship in accordance with the requirements of the suitable international convention.

Certification audit – complete assessment of the safety management system of the Company and/or ship in order to establish whether the relevant requirements of the *ISM Code* with amendments are complied with.

Chemical tanker – a cargo ship constructed or adapted for the carriage in bulk of any liquid product of a dangerous nature.

Container ship – a ship specially intended and equipped with guides for the carriage of containers provided that they are loaded and unloaded vertically.

Convention ship – a ship to which the appropriate convention applies.

Crew of a ship – a group of persons controlling the ship and ensuring her manoeuvrability and safe operation, together with a personnel attending those on board, including passengers.

Date of contract for construction – unless specified otherwise:

.1 the date of contract for construction of a ship – the date on which the contract to build the ship is signed between the prospective Owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the ships included in the contract shall be declared to BCS by the party applying for the assignment of class to a new building;

.2 the date of contract for construction of a series of sister ships, including specified optional ships for which the option is ultimately exercised – the date on which the contract to build the series is signed between the prospective owner and the shipbuilder.

For the purpose of this definition, ships built under a single contract for construction are considered a "series of sister ship" if they are built to the same approved plans for classification purposes. However, ship within a series may have design alterations from the original design provided:

- such alterations do not affect matters related to classification, or
- if the alterations are subject to classification requirements, these alterations shall comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date when the alterations are submitted to BCS for approval.

The optional ships will be considered part of the same series of sister ship if the option is exercised not later than 1 year after the contract to build the series was signed.

.3 if a contract for construction is later amended to include additional ships or additional options, the date of contract for construction for such ships is the date on which the amendment to the contract is signed between the prospective Owner and the shipbuilder. The amendment to the contract shall be considered as a new contract to which the provisions of .1 and .2, above, apply;

.4 if a contract for construction is amended to change the ship type, the date of contract for construction of this modified ship, or ships, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

Date of delivery – the completion date (day, month and year) of the survey on which the certificate is based (i.e. the initial survey before the ship is put into service and certificate issued for the first time) as entered on the relevant statutory certificates.

Deficiency – departure from the requirements of a relevant convention and/or the Flag Administration.

Document of compliance (DOC) – a document issued to the Company, meaning that the Company's SMS has been audited and complies with the requirements of the *ISM Code* for the ship types covered by SMS.

Examining – except where used in "examining the plans" or "examining the design" – a thorough examination, using appropriate techniques, of the components, system or appliance in question for satisfactory provision, arrangement and condition and for any signs of defects, deterioration or damage.

First survey – the first annual, periodical or renewal survey as applicable to the relevant certificates, whichever is due first after the date specified in the relevant regulation of *SOLAS Convention* or any other survey if the administration deems it to be reasonable and practicable, taking into account the extent of repairs and alterations being undertaken.

First survey for a ship under construction, where the keel is laid before, but the ship is delivered after the date specified in the relevant regulation – the initial survey and the ship needs to comply with the relevant regulation when it is delivered.

Flag Administration – the Government of the State whose flag the ship is entitled to fly.

Gas carrier – a tanker constructed or adapted for the carriage in bulk of any liquefied gas or other products listed in chapter 19 of the *International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk* (*IGC Code*).

High-speed craft – a craft capable of a maximum speed, in metres per second (m/s), equal to or exceeding $3.7\ V^{0.1667}$,

where V = volume of displacement corresponding to the design waterline (m^3).

Insignificant deficiencies – those not causing stopping the ship in port and not creating danger to the ship, people onboard or sea environment.

Major non-conformity – a deviation which may pose a serious threat to safety at sea or a serious risk to the personnel safety or marine environment and requires immediate corrective action. The lack of effective and systematic implementation of a requirement of the *ISM Code* is also considered as a major non-conformity.

New ship – a ship defined as a new ship in an applicable convention.

Nonconformity – deviation by provision of objective evidence that particular requirements if the *ISM Code* are not fulfilled.

Non-convention ship – a ship to which the convention does not apply.

Noxious liquid substance – any substance of Category A, B, C or D according to Chapters 17 and 18 of the *IBC Code*, as well as any other liquid substance assessed under the provisions of Appendix I to Annex II of *MARPOL 73/78* as falling into Category A, B, C or D.

Oil – petroleum in any form, including crude oil, fuel oil, sludge, oil refuse and refined products (other then petrochemicals which are subject to the provisions of *Annex II to MARPOL 73/78)* and, without limiting the generality of the foregoing, includes the substances listed in *Appendix I to Annex I* to the *International Convention for the Prevention of Pollution from Ships, MARPOL 1973,* excluding vegetable oils.

Oil tanker – a cargo specially intended for the carriage of oil in bulk as well as any combination carrier, chemical tanker or gas tanker carrying oil in bulk.

Owner of the ship – organization or person such as manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the shipowner.

Passenger ship – a ship which may carry more than twelve passengers.

Recognized service suppliers – organization or person holding an *Approval Certificate* issued by BCS S.A., providing services such as measurements, tests or examinations within a scope and conditions specified by BCS S.A.

Renewal audit – a repeated complete assessment of the safety management system, which leads to issue of a new certificate.

Safety Management Certificate (SMC) – a document issued to the Company that his ship's SMS upon verification that the Company's DOC is relevant to the ship's type, has been audited and complies with the requirements of the *ISM Code*.

Safety Management Manual (SMM) – the documentation used to define the Owner's safety and environment protection policy and to describe his safety management system (SMS).

Safety management system (SMS) – documented organizational structure, division of responsibilities and authority, procedures and resources enabling safety management.

Ship constructed – ship the keel of which is laid or which is at a similar stage of construction.

Short voyage – a voyage where neither the distance from the port in which the voyage begins to the final port of destination nor the return voyage exceeds 1000 miles.

Significant deficiencies – those which can not be treated as insignificant ones.

Similar stage of construction – stage at which:
- construction identifiable with a specific ship begins; and
- assembly of that ship has commenced comprising at least 50 tones or 1% of the estimated mass of all structural material, whichever is less.

Statutory survey of non-convention ship – survey performed by BCS. within the scope specified by Flag Administration according to its requirements.

Subdivision – capability of a ship to maintain buoyancy after damage and flooding of a compartment or adjacent compartments and stability, in accordance with the requirements specified in relevant *Rules*.

Survey – a set of activities relating to a ship, its machinery, appliances, equipment, etc. realized through review of technical documentation, as well as carrying out appropriate examinations, measurements and tests.

Tanker – a cargo ship specially intended for the carriage of liquid cargoes in bulk.

Technical survey – a set of activities aimed at ascertaining that the surveyed object conforms to the specified technical requirements.

Technical deficiency – damage to a ship structure or incorrect operation of a whole or a part of machinery or hull equipment.

Testing – a functional test of the system or appliance in question, to confirm its satisfactory operation and performance for its intended use.

1.3 Scope of Survey Activities

1.3.1 The survey activities performed by BCS include surveys and audits. On satisfactory completion of the survey activities BCS issues, renews and confirms the following documents:

.1 For convention ships:
- Passenger Ship Safety Certificate;
- Cargo Ship Safety Certificate;
- Cargo Ship Safety Equipment Certificate;
- Cargo Ship Safety Construction Certificate;
- Cargo Ship Safety Radio Certificate;
- International Load Line Certificate;
- International Load Line Exemption Certificate;
- International Oil Pollution Prevention Certificate;
- International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk;
- International Sewage Pollution Prevention Certificate;
- International Air Pollution Prevention Certificate;
- Garbage Pollution Prevention Certificate of Compliance;

– International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk;
– Document of Compliance with the Special Requirements for Ships Carrying Dangerous Goods;
– International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk;
– Certificate of Fitness for the Carriage of Liquefied Gases in Bulk;
– International Anti-Fouling System Certificate;
– International Tonnage Certificate;
– Tonnage Certificate;
– Certificate of Compliance with Conventions concerning Crew Accommodation on Board Ships (*ILO Conventions*: C92 and C 133);
– Maritime Labour Certificate (*MLC 2006 Convention*);
– Register of Ships Lifting Appliances;
– High-Speed Craft Safety Certificate;
– Fishing Gear Documents;
– Safety Management Certificate;
– Document of Compliance;
– Mobile Offshore Drilling Unit Safety Certificate;
– Exemption Certificate;
– Polar Ship Certificate;
– International Ballast Water Management Certificate;

.2 For non-convention ships a scope of survey and type of documents issued after survey is determined by the Flag Administration**.**

1.3.2 Statutory surveys are performed according to provisions of IMO Resolution A.1140(31), as amended. The scope of surveys for issuing documents not mentioned in Resolutions A.1140(31), as amended is agreed with Administration.

1.3.3 BCS conducts statutory surveys of the following installations and equipment, not covered by classification survey:

.1 life-saving appliances;
.2 signal means;
.3 radio equipment;
.4 navigation equipment;
.5 lifting appliances;
.6 fishing gear lifts;
.7 fire protection, fire detection and fire extinction systems;
.8 marine pollution prevention and ensuring energy efficiency, including marine pollution devices survey;
.9 tonnage measurement;
.10 load line;
.11 safety management systems;
.12 crew accommodations;
.13 lashing of containers and lashing of cargoes;
.14 pilot transfer arrangements;
.15 documents relevant to the above mentioned matters.

1.3.4 Detailed requirements concerning matters mentioned in 1.3.3 are included in conventions and other IMO documents as well as in the *Rules for Statutory Survey of Sea-going Ships* and the following Publications:

– BCS-R 001-E– *Requirements concerning Stowage and Lashing of Cargoes of Sea-going Ships*;
– BCS-R 002-E– *Pilot Transfer Arrangements*;
– BCS-G 001E– *Guidelines for energy efficiency of ships – 2014.*

1.3.5 During statutory surveys the relevant classification documents are examined before issuing, renewal or confirming the statutory documents. The classification documents examined during statutory surveys refer to the following:

.1 hull;
.2 hull equipment;
.3 stability and subdivision;
.4 construction fire protection;
.5 machinery installations;
.6 electrical equipment and automation systems;
.7 fixed fire protection, fire detection and fire extinction systems

1.4 Survey Mode

1.4.1 BCS conducts technical survey of the convention equipment under design, construction and in service, after installation onboard.

1.4.2 In result of the survey of convention equipment under construction, BCS issues the relevant certificates.

1.4.3 BCS conducts statutory surveys of ships and their equipment. In result of survey activity BCS issues relevant reports and consequently, on their basis, issues, renews and confirms relevant certificates.

1.4.4 Document entitled *Certificate* confirming the fulfilment of the convention requirements can be issued only to the ship being subject to that convention and flying the flag of the state being a party to it. In all other cases where even one of these conditions is not fulfilled, only the document entitled *Certificate of Compliance* may be issued.

1.4.5 The relevant certificates can be issued for a new or existing ship.

1.4.6 Depending on the result of the survey the following types of certificates can be issued:

– Certificate (commonly called permanent or long-term certificate) is issued by Head Office on the basis of the positive result of the Class Renewal or Class Assignment Survey. Its validity period is specified by the convention being the basis for its issuance, provided that the certificate is confirmed annually. Permanent certificate may be cancelled and re-issued after the reason of its cancellation has been eliminated. Conditional certificate may be issued for the period of permanent certificate cancellation.
– Provisional certificate (Interim certificate) is issued by the Branch Office/Survey Station or Representative Office carrying out the survey on the basis of its positive result in order to enable ship's operation while the Head Office prepares the permanent certificate. Provisional certificate cannot be valid longer than 5 months.
– Conditional certificate is issued by the Branch Office/Survey Station or Representative Office on the basis of the survey disclosing insignificant nonconformities which cannot be eliminated in the port of survey. Conditional certificate is valid only for the period necessary for the ship to reach the port where the disclosed deficiencies can be eliminated. The period shall not exceed 2 months, unless the Flag State Administration decides otherwise.

Remark:
The Flag State Administration decides each time about issuing of the conditional certificate.

1.4.7 A certificate ceases to be valid in the case:

.1 if the periodical, intermediate or annual survey, as appropriate, or the inspection of the outside of the ship's bottom is not completed within the periods specified in the relevant regulation. The validity of the certificate may be restored after carrying out the appropriate survey which, in such circumstances, should consist of the activities of the survey that was not performed;
.2 when a ship is to change the flag of State – procedure described in paragraph 6 is obligatory.

1.4.8 If during any survey (initial, annual, intermediate, periodical, renewal, BCS or other) significant deficiencies were found and they have not been permanently eliminated or repaired in the port

of disclosure or they have not been temporarily eliminated or repaired according to BCS agreement with the Administration or as an exceptional case, as the result of which their status has been changed into insignificant deficiencies, then no certificate shall be issued or confirmed. If a ship is in the port of the State which is the Party to the Convention, BCS advises immediately the Administration and Port Authority about the deficiencies.

1.4.9 Certificates are issued or confirmed on condition that the result of statutory surveys is satisfactory and classification requirements are fulfilled, if applicable.

1.4.10 If a survey shows that the condition of the ship and its equipment correspond substantially with the particulars of the certificate, and the ship is fit to proceed to sea without danger to the ship, or persons on board, and without presenting unreasonable threat of harm to the environment, but deficiencies exist that cannot be rectified at the time of survey, the following should be guided:

.1 A condition should be issued, detailing any relevant requirements or conditions with assigned due date for the time needed to rectify the deficiencies, with relevant information being kept available on board. If and as required by the Administration, the relevant certificates should be issued with the appropriate expiry dates; and

.2 The Administration should be notified, as appropriate, according to the agreement with the nominated surveyor or the BCS.

1.4.11 If the conditional certificate is to replace the *Safety Construction Certificate* then the deficiencies causing the issuance of conditional certificate possible shall be noted down in the *Certificate of Class* or in Appendix thereto.

1.4.12 In the case of withdrawal or suspension of ship's class, the relevant certificates cease to be valid and BCS notifies the Administration and the Owner of this fact.

2 SURVEYS *(res. A.1140(31))*

2.1 General

2.1.1 All surveys included in the scope of the statutory activities shall be, if practicable, performer in the same time period.

2.1.2 The harmonized system, a diagrammatic arrangement of which is given in the Appendix No. 1, provides for:

.1 a one-year standard interval between surveys, based on initial, annual, intermediate, periodical and renewal surveys, as appropriate, except for *MARPOL Annex IV* which is based on initial and renewal surveys;

.2 a scheme for providing the necessary flexibility for the execution of each survey with the provision that:
- the renewal survey may be completed within 3 months before the expiry date of the existing certificate with no loss of its period of validity;
- a „time window" of 6 months is allowed (3 months before and after the anniversary date of the certificate) for annual, intermediate and periodical surveys;

.3 a maximum period of validity of five years for all certificates for cargo ships;

.4 a maximum period of validity of 12 months for *Passenger Ship Safety Certificate*;

.5 a system for extension of certificates limited to three months enables a ship to complete its voyage, or one month for ships engaged on short voyages;

.6 when an extension has been granted, the period of validity of the new certificate starts from the expiry date of the existing certificate before its extension;

.7 a flexible system for inspection of the outside of the ship's bottom on the following conditions:
- a minimum of two inspections during any five-year period;
- the interval between any two such inspections shall not exceed 36 months;

.8 a provision for a *Cargo Ship Safety Certificate* under *SOLAS 74/88/00*, as an alternative to separate *Cargo Ship Safety Construction*, *Cargo Ship Safety Equipment* and *Cargo Ship Safety Radio Certificates* (it is decision of Flag Administration). The surveys for the issue and renewal of the *Cargo Ship Safety Certificate* should be in accordance with the certificates it replaces and, similarly, the annual and intermediate surveys should be the same as those required for the replaced certificates;

.9 a flexible system concerning the frequency and the period of validity of certificates, provided that the minimum pattern of surveys is maintained.

2.2 Types of Survey

2.2.1 Initial Survey

2.2.1.1 The initial survey before the ship is put into service, or when a new instruments applies to an existing ship, aimed at issue of appropriate certificates specified in 1.3.1 for the first time shall include a complete inspection of the structure, machinery and equipment to ensure that the relevant requirements are complied with.

2.2.1.2 The initial survey refers to a newly constructed ship as well as to existing ship which has not been surveyed by BCS before or which return to BCS class , to ensure that the ship is in satisfactory condition for the service for which she is intended.

2.2.1.3 The initial survey is performed on the basis of technical documentation approved by BCS or by Flag Administration or the Society authorized by that Administration.

2.2.1.4 The initial survey shall consist of:

– an examination of the plans, diagrams, specifications, calculations and other technical documentation to verify that the hull, machinery and equipment comply with the requirements relevant to the particular certificate;
– an inspection of the hull, machinery and equipment, including relevant measurements and tests, to ensure that the materials, scantlings, construction, equipment and its arrangements, as appropriate, are in accordance with the approved technical documentation and that the workmanship and installation are in all respect satisfactory;
– checking that all the certificates, record books, operating manuals and other instructions and documentation specified in the requirements relevant to the particular certificate issue are on board the ship.

2.2.1.5 An application for initial survey shall be accompanied by the following documents submitted to BCS:

– technical documentation (plans and drawings) listed in 3;
– the particulars of the ship;
– any exemptions required;
– any special conditions.

2.2.2 Periodical Survey

2.2.2.1 A periodical survey is an inspection of a ship and its equipment relating to the particular certificate to ensure that they are in a satisfactory technical condition and are fit for service for which the ship is intended.

2.2.2.2 The periodical survey shall be held within three months before or after the second anniversary date or within three months before or after the third anniversary date in the case of the *Cargo Ship Safety Equipment Certificate* and shall take place of one of the annual surveys – see Appendix 1.

2.2.2.3 In the case of the *Cargo Ship Safety Radio Certificate*, the periodical survey should be held within three months before or after each anniversary date.

2.2.2.4 The periodical survey shall consist of:
– an inspection, with tests when necessary, of the equipment to ensure that requirements relevant to the particular certificate confirmation are complied with;
– checking that all certificates, record books, operating manuals and other instructions and documentation specified in the requirements relevant to the particular certificate confirmation are on board the ship.

2.2.2.5 Where a periodical survey has not been performed within the due dates, the provisions specified in 1.4.7.1 apply.

2.2.3 Renewal Survey

2.2.3.1 A renewal survey is the same as periodical survey but it is aimed at the issue of new certificates specified in 1.3.1.

2.2.3.2 The cargo ship safety construction renewal survey may be commenced at the fourth annual survey and may be progressed during the succeeding year with a view to completion by the fifth anniversary date. The survey items of the fourth annual survey are not credited to the completion of the renewal survey.

2.2.3.3 The renewal survey shall be held within three months before the expiry date of the appropriate certificates – see Appendix 1.

2.2.3.4 The renewal survey shall consist of:
– an inspection of the hull, machinery and equipment, including relevant measurement and tests, to ensure that the requirements relevant to the particular certificate issue are complied with and that they are in a satisfactory technical condition and are fit for the service for which the ship is intended;
– checking that all the certificates, record books, operating manuals and other instructions and documentation specified in the requirements relevant to the particular certificate are on board the ship.

2.2.3.5 Concurrent crediting to both intermediate and renewal safety construction survey for surveys of spaces is not permitted.

2.2.4 Intermediate Survey

2.2.4.1 An intermediate survey is an inspection of specific items of a ship and its equipment relevant to the particular certificate, to ensure that they are in satisfactory condition and are fit for the service for which the ship is intended.

2.2.4.2 When specifying items of hull and machinery for detailed examination, due account shall be taken of any continuous survey schemes that may be applied by classification societies.

2.2.4.3 The intermediate survey shall be held within three months before or after the second anniversary date or within three months before or after the third anniversary date of the appropriate certificate and shall take place of one of the annual surveys – see Appendix 1.

2.2.4.4 When an intermediate survey has not been performed within the due dates, the provisions specified in 1.4.7.1 apply.

2.2.5 Annual Survey

2.2.5.1 An annual survey is an inspection of the ship and its equipment within the scope relating to the particular certificate to ensure that they have been maintained in accordance with the relevant requirements.

2.2.5.2 The annual survey shall be held within three months before or after each anniversary date of the certificate – see Appendix 1.

2.2.5.3 The scope of annual survey shall be as follows:
– certificate examination, a visual examination of a sufficient extent of the ship and its equipment and certain tests to confirm that their condition is being properly maintained;

– visual examination to confirm that no modifications unapproved by BCS have been made to the ship and its equipment;
– the detailed survey within the scope given in the respective chapters of *Supplement* to these Rules. The thoroughness and stringency of the survey shall depend upon the condition of the ship and its equipment;
– where any doubts arise as to the maintenance of the condition of the ship or its equipment, further examination and testing shall be conducted as considered necessary.

2.2.5.4 Where an annual survey has not been performed within the due dates, the provisions specified in 1.4.7.1 apply.

2.2.6 Additional Survey

2.2.6.1 An additional survey is an inspection, either general or partial according to the circumstances, to be made after damage, a repair resulting from execution of statutory conditions issued after a survey or whenever any important repairs or renewals are made. The scope of the additional survey is determined in the *Rules for the Classification and Construction of Sea-Going Ships – Part I: Classification Regulations.*

2.2.6.2 An additional survey of the ship shall be performed whenever an accident occurs or a defect is discovered which affects the safety or integrity of the ship or the efficiency or completeness of its equipment.

The owner shall report an accident or damage at the earliest opportunity to the Administration and to BCS.

The aim of the additional survey is to assess the extent of damage, specify the scope of work required to eliminate the consequences of damage and to determine the possibility and conditions for maintenance of the validity of the appropriate certificates.

2.2.6.3 The additional survey shall be such as to ensure that the repairs and any renewals have been effectively made and that the ship and its equipment continue to be fit for the service for which the ship is intended.

2.2.7 Inspection of the Outside of the Ship's Bottom of Cargo Ships

2.2.7.1 An inspection of the outside of the ship's bottom is an inspection of the underwater part of the ship and related items to ensure that they are in a satisfactory condition and are fit for the service for which the ship is intended.[1]

2.2.7.2 There shall be minimum two inspections of the outside of the ship's bottom during any five-year period, except where *SOLAS 74/78* regulation I/14(e) or (f) is applicable. One such inspection shall be performed on or after the fourth annual survey in conjunction with the renewal of the *Cargo Ship Safety Construction Certificate* or the *Cargo Ship Safety Certificate*. Where the *Cargo Ship Safety Construction Certificate* or the *Cargo Ship Safety Certificate* has been extended under *SOLAS 74/88* regulation I/14(e) or (f), this five-year period may be extended to coincide with the validity of the certificate. In all cases the interval between any two such inspections shall not exceed 36 months.

2.2.7.3 Inspection of the outside of the ship's bottom is normally to be performed with the ship in dry dock. In well-grounded cases, BCS may permit carrying out the in-water bottom survey by a diver.
– Inspection of the outside of the ship's bottom of ships, which are subject to an enhanced hull survey, i.e. bulk carriers and oil tankers of 15 years of age and over shall be performed with the ship in dry dock;
– Inspection of the outside of the ship's bottom of ships of 15 years of age and over other than bulk carriers and oil tankers is permitted to be performed by a diver;
– Inspection of the outside of the ship's bottom of bulk carriers and oil tankers below 15 years of age is permitted to be performed by a diver excluding class renewal survey;

[1] Refer to *MSC.1/Circ.1223: Guidelines for pre-planning of surveys in dry dock of ships which are not subject to the enhanced program of inspections*.

– Inspection of the outside of the ship's bottom is permitted to be performed by a diver provided that the survey conditions are satisfactory, the proper equipment is available and the survey is performed by BCS surveyors-divers or by BCS surveyor being onboard ship and a service firm approved by BCS for performing diving, possessing appropriate equipment.

2.2.7.4 Where an inspection of the ships bottom has not been performed before the due dates, the provisions specified in 1.4.7.1 apply.

2.2.8 Inspection of the Outside of the Passenger Ship's Bottom

2.2.8.1 A minimum of two of the inspections of the outside of the ship's bottom during any five-year period[1)] shall be conducted in dry-dock. In all cases, the maximum interval between any two dry-dock bottom inspections shall not exceed 36 months.

2.2.8.2 Inspection of the ship's bottom required for the renewal survey that are not conducted in dry dock may be performed with the ship afloat.

2.2.8.3 The bottom inspection, regardless of method, shall be performed within the allowable time window for the *Passenger Ship Safety Certificate* renewal survey (i.e., within the 3 months time window before the expiry date of the certificate).

2.2.8.4 Inspections of the outside of the ship's bottom conducted afloat shall only be performed when the conditions are satisfactory and the proper equipment and suitably qualified staff is available. The survey may be performed by a BCS Surveyor-diver or an employee of a service supplier recognized by BCS who preforms underwater works in attendance of BCS Surveyor.

2.2.8.5 Rudder bearing clearances specified in 6.2.2.1 of *Supplement* may not be taken at the afloat inspections.

2.2.8.6 Inspection of the outside of the bottom of ships 15 years of age or over shall be performed in dry dock. In justified cases BCS may give consent to perform such an inspection afloat.

2.2.8.7 If a survey in dry-dock is not completed within the maximum intervals referred to above, the *Passenger Ship Safety Certificate* shall cease to be valid until the survey in dry dock is completed.

2.2.9 Surveys and Tests of Radio and Navigational Equipment

2.2.9.1 The surveys and tests of the radio and navigational equipment shall be performed by BCS Surveyor and the specialist of the service supplier approved by BCS. The service supplier specialist preforms the equipment operation tests and parameter measurements.

2.2.9.2 The radio and navigational equipment shall be subjected to tests after installation on board ship.

2.2.9.3 On convention ships, the tests of the radio equipment shall be performed each year; the tests of the navigational equipment shall be performed every 5 years except AIS and VDR which shall be surveyed every 1 year.

2.2.9.4 The survey of the automatic identification system should be performed using suitable test equipment capable of performing all the relevant measurements required by and in accordance with the *Guidelines on Annual Testing of the Automatic Identification System (AIS) MSC.1/Circ.1252.*

2.2.9.5 On ships not subject to the *SOLAS Convention* requirements, the tests of the radio and navigational equipment shall be performed every 5 years.

[1)] Any five-year period is the five-year period of validity of the *International Load Line Certificate.*

2.2.9.6 Completion of the radio and navigational equipment tests shall be confirmed by the service supplier specialist on the relevant report prepared by BCS Surveyor or a report on these tests shall be sent by him to the BCS Head Office.

3 TECHNICAL DOCUMENTATION OF THE STATUTORY EQUIPMENT

3.1 General

3.1.1 Prior to the commencement of construction of a ship to be surveyed by BCS, technical documentation of the equipment and installations, as defined in 3.2, and programme of tests of the equipment after installation shall be submitted to BCS Head Office for consideration and approval. The increased scope of required documentation of the statutory equipment is defined in appropriate parts of the *Rules for Statutory Survey of Sea-going Ships.*

3.1.2 Prior to the commencement of alteration and/or reconstruction of the ship, technical documentation of the equipment and installations being subject of replacement, repairing or alteration shall be submitted to BCS Head Office for consideration and approval.

3.1.3 In the case of installation of new equipment on the ship in service, the installation documentation for this equipment, in the scope required for new constructed ship, shall be submitted to BCS Head Office for consideration and approval.

3.2 Technical Documentation of the Statutory Equipment Installed on a New Constructed Ship

3.2.1 General

.1 technical description of the ship and of the complete statutory equipment to be surveyed by BCS (for consideration).

3.2.2 Documentation of Life-saving Appliances

.1 list of life-saving appliances, their types and manufacturers;
.2 arrangement plan of life-saving appliances;
.3 evacuation plan.

3.2.3 Documentation of Signal Means

.1 list of signal means, their types, specifications and manufacturers;
.2 plans for positioning of the navigation lights and sound signalling equipment and co-ordinate axes of their arrangement;
.3 plan for positioning of sidelights in cavities and the dimensions of cavities, as well as for positioning of the other lights and horizontal and vertical sectors of light;
.4 plan of shadow sectors of all-round lights, except anchor lights;
.5 range of visibility of masthead lights (forward and after one) at a distance of 1000 metres from the stern when viewed from sea level;

[1] Refer to Unified Interpretation of SOLAS regulation XIV/2.2 and paragraphs 1.3.2 and 1.3.6, part I-A of the Polar Code (MSC.1/Circ.1562).

.6 plan for positioning of signal lights and pyrotechnic distress signals.

3.2.4 Documentation of Radio Installations:

.1 list of the radio installations, their types and manufacturers;
.2 declaration of the sea areas;
.3 methods of maintenance of the radio installations;
.4 connection diagram of the radio installations and sources of energy, type of cables;
.5 method of grounding of the radio installations;
.6 calculation of the capacity of the reserve source of electrical energy for the radio installations;
.7 arrangement of the radio installations on the navigation bridge;
.8 common plans of antennas of the radio and navigation equipment (at least two views).

3.2.5 Documentation of Navigational Equipment:

.1 list of the navigational equipment, their types and manufacturers;
.2 connection diagram of the navigational equipment and sources of electrical energy, type of cables;
.3 method of grounding of the navigational equipment;
.4 arrangement of the navigational equipment on the navigation bridge;
.5 common plans of antennas of the radio and navigational equipment (side and top views);

3.2.6 Documentation of Lifting Appliances

.1 list of lifting appliances, their types and manufacturers;
.2 plan for positioning of the lifting appliances, their specifications and operation scope;
.3 plan of crane devices fastening to the deck;
.4 drawings of fastening of booms and crane gantries in the stowed condition.

3.2.7 Documentation of Fishing Gear Lifts

.1 list of fishing gear lifts, their types and manufacturers;
.2 plan for positioning of fishing gear lifts and their specifications as well as operational parameters;
.3 drawings of particular fishing gear lifts including specifications for their winches, bearing structures, gear and wire ropes;
.4 drawings of bearing structures and their securing;
.5 drawings of gear.

3.2.8 Documentation of Fire-fighting Equipment

.1 *Fire Control Plan*;
.2 list of fire-fighting equipment, their types and manufacturers;
.3 plan for positioning of the fire-fighting equipment;
.4 list of required spare parts;

3.2.9 Marine Pollution Prevention Documentation

.1 Within the scope of *MARPOL 73/78 Annex I* requirements:
- list of marine pollution prevention arrangements, providing types and manufacturers;
- bilge water and oil residue piping diagram;
- cargo and cargo stripping piping diagram;
- *Shipboard Oil Pollution Emergency Plan* or *Shipboard Marine Pollution Emergency Plan*;
- *Double Purpose Oil Fuel/Ballast Water Tanks Operation Manual* (if provided);
- *Dedicated Clean Ballast Tanks Operation Manual*;
- existing oil tankers special ballast arrangements in accordance with *MARPOL 73/78 Annex I regulation 18* for operation procedures*;*
- stability and subdivision information in accordance with *SOLAS 74, chapter II-1, part B-1*;
- damage stability and subdivision information in accordance with *SOLAS 74, chapter II-1, part B-1;*
- *Crude Oil Washing Operations Manual*;
- *Oil Discharge From Cargo Spaces Monitoring and Control System Operations Manual*;

– *Oil Transfer Operations Plan STS – Ship-to Ship Transfer at Sea*

.2 Within the scope of *MARPOL 73/78 Annex II* requirements:
- list of marine pollution prevention arrangements, providing types and manufacturers;
- stability booklet referred to in *IBC Code* paragraph 2.2.5;
- *Procedures and Arrangements Manual*;
- *Shipboard Marine Pollution Emergency Plan for Oil and/or Noxious Liquid Substances*;
- cargo and cargo stripping piping diagram;
- tank washing piping diagram;
- diagrams to show design and location of cargo residue and tank washing discharge outlets;
- diagrams to show design of ventilation equipment used to discharge cargo residues;
- cargo heating installation (for solidifying and high viscosity substances).

.3 Within the scope of *MARPOL 73/78 Annex IV* requirements:
- list of marine pollution prevention arrangements, providing types and manufacturers;
- Sewage Piping Diagram.

.4 Within the scope of *MARPOL 73/78 Annex V* requirements:
- list of marine pollution prevention arrangements, providing types and manufacturers;
- *Garbage Management Plan*.

.5 Within the scope of MARPOL 73/78 *Annex VI* requirements:

.1 List of marine pollution prevention arrangements using ozone depleting substances;

.2 Documentation of marine pollution prevention arrangements:
- Documentation of Exhaust Gas Cleaning System (EGCS-SO_X);
- *Fuel Oil Sampler Operation Manual*;
- *Incinerator Operation Manual*.

.3 *Technical File*,

.4 *Record Book of Engine Parameters*,

.5 *Onboard Monitoring Manual (OMM)*,

.6 *ECA Compliance Plan (ECP)*,

.7 transfer procedure for the VOC collection system;

.8 *VOC Management Plan*;

.9 fuel-oil changeover procedures;

.10 *Approved Method File*.

.6 Within the scope of energy efficiency
1. EEDI Technical File
2. Ship Energy Efficiency Management Plan (SEEMP), *SEEMP Part I* and/or *SEEMP Part II* in the case of a ship of 5,000 GT and above.

3.2.10 Documentation of Arrangement and Fastening of Containers

.1 plan of the arrangement and securing of containers including a list of permanently attached gear and loose gear;

.2 plan of the arrangement of sockets and catches for fastening of containers.

3.2.11 Documentation of Arrangement of Standing Cargo Securing Equipment

.1 plan of the arrangement of sockets and catches for fastening of the cargo including the list of fastening equipment

3.2.12 Documentation on Tonnage Measurement of Ships

.1 general arrangement plan;

.2 drawing of body lines;

.3 table of ordinates determining breadth of the ship measured between the design frames, at the subdivision load lines and decks, and depth of the decks measured at side and in the centre line of ship, and submitting ordinates of stem and stern curvature;

.4 midship section;

.5 longitudinal section;

.6 tank plan;
.7 drawings of superstructures, deckhouses, coamings and hatch covers**.** For a specially constructed ships the scope of documentation may be extended;
.8 information referring to:
- number of passengers;
- number of passengers in cabins with not more than 8 berths;
- the draught of the ship.

3.2.13 Documentation for Assignment of Freeboard

.1 data relating to structural strength at the draft corresponding to the assigned freeboard;
.2 intact stability and, where applicable, the damaged stability information;
.3 loading manual, where required;
.4 drawing for assignment of freeboard including the following items:
- doors;
- sidescuttles and windows;
- hatches;
- ventilators and air pipes;
- scuppers, inlets and discharges;
- sea inlets and discharges in unattended machinery space;
- freeing ports;
- guard rails and bulwark;
- gangways, walkways and other means provided for the protection of the crew and for gaining access to and from crew's quarters and working spaces;
- fittings and appliances for timber deck cargoes;
- bow ports, stern door and side ports.

3.2.14 Documentation within the Scope of Stability and Subdivision

.1 Prior to the commencement of the ship's construction or alteration, the following, within the scope of stability, shall be submitted for information:
- general arrangement plan;
- arrangement plan of outer doors, companionways and sidescuttles;
- body lines or the body lines table;
- hydrostatic curves, Bonjean scale, cross curves of stability – prints-outs of calculation results with control diagrams;
- calculations of: heeling levers due to the effect of wind including the windage area diagram, flooding angles, icing, liquid free surface effect on the ship's stability;
- calculations and diagrams of the permissible value of the vertical coordinate of the ship's centre of mass, depending on the ship's draught or displacement;
- plan of cargo compartments, tanks, including sounding tables and the plan of decks;
- plan of permanent ballast, where provided;
- preliminary stability booklet.

.2 Upon completion of the ship's construction or alteration, the following, within the scope of stability, shall be submitted for approval and consideration:
- stability booklet prepared on the basis of the inclining test data;
- inclining test report;
- updated documentation referred to in 3.2.14.1 (except a preliminary stability booklet) – if changes have been introduced thereto;
- loading plan of grain or other solid bulk cargoes, where provided.

.3 Prior to the commencement of the ship's construction or alteration, the following, within the scope of subdivision, shall be submitted for agreement and information:
- for passenger ships: calculations and drawings related to subdivision and the permissible length of compartments or determining the subdivision index required and attained, as appropriate;
- for cargo ships: calculations and drawings related to determining the subdivision index required and attained;

- calculations and diagrams of the permissible value of the vertical coordinate of the intact ship centre of mass, which assures compliance with stability criteria after damage;
- preliminary damage control plan;
- preliminary stability and subdivision booklet.

.4 Upon completion of the ship's construction or alteration, the following, within the scope of subdivision, shall be submitted for approval and consideration:
- stability and subdivision booklet;
- damage control plan;
- updated documentation referred to in 3.2.14.3 (except two last items) – if any changes have been made thereto.

3.2.15 Documentation of Safety Management System

.1 *Safety Management Manual*;
.2 Procedures;
.3 Instructions (where provided).

3.2.16 Documentation of Crew Accommodation

.1 general plan of crew accommodation arrangement;
.2 crew accommodation drawing identifying:
- location of each accommodation space and its allocation;
- disposition of furniture and fittings;
- means and arrangements of ventilation;
- lighting and heating;
- sanitary arrangements.

3.2.17 Documentation on Marine Search and Rescue Coordination (required for Passenger Ships)

.1 Plan of coordination in marine search and rescue actions including:
- general provisions;
- owner's name and address;
- information on ship including:
- general data;
- life-saving appliances plan;
- plan for the fire-protection arrangements;
- damage control plan;
- information about distress alerts radio devices;
- general information on maritime search and rescue;
- plan of arrangement relating maritime search and rescue and list of life-saving appliances;
- methods of cooperation with media;
- training plan on maritime search and rescue;
- maritime mobile access and retrieval system (MARS);

3.2.18 Documentation for Ballast Water Management System

- Design and construction drawings;
- Plans for the installation of Ballast Management System**;**
- Plans for the installation of prototype ballast water treatment technologies (if applicable);
- Type approval certificates for Ballast Water Management System issued by the Administration or its representative; Ballast Water Management Plan;
- Operational and maintenance procedures.

4 SURVEY OF MANUFACTURING OF PRODUCTS BELONGING TO STATUTORY EQUIPMENT

4.1 General

4.1.1 Products provided for installation on convention ships shall be manufactured under BCS direct or indirect survey. Type of survey is determined by BCS**.**

4.1.2 Products manufactured under BCS survey shall be subjected to the required tests and inspections at the manufacturers' or other laboratories and service stations accepted by BCS.

4.1.3 All the products for which BCS certificates are issued shall be stamped with the survey acceptance marks to be repeated in the BCS certificates.

4.1.4 In well justified cases, in certificates issued as a result of a performed survey, BCS may specify special operating conditions for particular products.

4.1.5 All statutory equipment installed on board shall be type approved by BCS or have relevant certificates of conformity with the *Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 on marine equipment and repealing Council Directive 96/98/EC,* so-called *MED Directive* . Please find below detailed requirements:

- **.1** statutory equipment intended for placing on board a convention ship flying any European Union Member State flag shall have relevant certificates of conformity with the *MED Directive;*
- **.2** statutory equipment in question in .1 intended for placing on board a convention ship flying the flag of State other than European Union Member State, shall be type approved by BCS or shall have relevant certificates of conformity with the *MED Directive;*
- **.3** remaining statutory equipment not specified in *Annex A.1* to *MED Directive* intended for placing on board a convention ship flying any flag shall be type approved by BCS;
- **.4** statutory equipment in question in .1 intended for placing on board a passenger ship engaged on domestic voyages and flying the flag of any EU Member State shall have relevant certificates of conformity with the *MED Directive;*
- **.5** statutory equipment intended for placing on board a ship which is not engaged on international voyages shall be type approved by BCS.

4.2 Direct Survey

4.2.1 Direct survey is performed by BCS Surveyors on the basis of approved technical documentation, conventions listed in 1.1.2 and resolutions mentioned in this conventions , rules and additional requirements or standards coordinated with BCS. The range of examinations , measurements and tests, performed during survey shall be defined in *Programme of Tests* approved by BCS Head Office.

4.2.2 As a result of the performed survey and satisfactory tests of products, the following certificates are issued or confirmed by BCS:

- **.1** BCS certificates for products;
- **.2** BCS certificates on the performed tests.

4.2.3 BCS may apply indirect survey to a series production of products. The condition for the manufacturing of product under indirect survey is ensuring, by the manufacturer, a good and uniform standard of quality of series production. The mode and scope of indirect survey are specified by BCS.

4.3 Indirect Survey

4.3.1 Indirect survey is performed for products with BCS's *Type Approval Certificates* by manufacturer' s technical services on the basis of technical documentation approved by BCS.

4.3.2 *Type Approval Certificate* is issued as a result of the following acceptance procedure:

- **.1** the approval by BCS of technical documentation of product type;

.2 the approval by BCS of programme of tests of product type;
.3 inspection performed by BCS Surveyor at the manufacturer's works;
.4 satisfactory results of type test.

4.3.3 Type tests shall be performed according to the test programme agreed with BCS at the manufacturer 's laboratory or at another laboratory recognized by BCS S may recognize results of tests performed without BCS survey at the laboratory approved by the Administration.

4.3.4 For each product manufactured under indirect survey, manufacturer, the holder of BCS *Type Approval Certificate* issues its own document, in which reference is made to *Type Approval Certificate* No.

4.3.5 BCS publishes on its website https://www.bahriaclassificationsociety.org/ lists of *Type Approval Certificates* granted for products.

4.3.6 *Type Approval Certificate* will cease to be valid in the following cases:
.1 unsatisfactory service results;
.2 changes in the structure or material of products without BCS consent;
.3 changes in the Rules or Type Approval Procedure.

5 APPROVAL OF TESTING STATIONS, LABORATORIES, SERVICE SUPPLIERS, REPAIR AND MAINTENANCE WORKSHOPS

5.1 General

5.1.1 BCS may approve testing stations, laboratories, service suppliers and repair and maintenance workshops as competent to provide services for the purpose of BCS survey by issuing certificates confirming this approval.

5.1.2 Where services mentioned in 5.1.1 are used by BCS Surveyors in making decisions affecting issuance of statutory certifications, the firms are subject to approval by BCS in accordance with the mandatory procedures given in BCS-R Z17– *Procedural Requirements for Service Suppliers*.

5.1.3 Where services mentioned in 5.1.1 are not directly used by BCS Surveyors in making decisions affecting statutory certifications, the firms are subject to approval by BCS in accordance with the mandatory procedures given in BCS -G-002 E– *Principles of Recognition of Testing Stations and Maintenance Shops.*

5.1.4 At the customer request, procedure of approval of the service supplier, defined in 5.1.2 and 5.1.3, can be performed by BCS together with procedure of certification of the quality system for compliance with *ISO 9000 series of Standards*.

5.1.5 The basic conditions for approval of the above organizations are:
.1 suitable qualified personnel;
.2 necessary instruments, machines and appliances for conducting tests and examinations, provided with valid legalization or control certificates;
.3 the application of proper processes in the repair, maintenance or manufacture;
.4 the application of appropriate supervision and verification system for all services provided.

5.1.6 *Approval Certificate* is issued with validity of up to three years. During the certificate validity, BCS reserves for itself the right to conduct periodical and occasional inspections of the recognized organization.

5.1.7 BCS may limit the scope of approval, suspend or withdraw the certificate granted if major deficiencies of the Rules have been observed.

5.1.8 BCS publishes periodically lists of approved testing stations, laboratories, repair and maintenance workshops.

5.1.9 BCS may accept *Certificate of Approval* issued by the Administration and grant a single approval to the service supplier according to 5.1.5.

6 PROCEDURE FOR CHANGE OF FLAG *(under res. A.1140(31) and BCS PR No. 28, as amended)*

6.1 The certificates cease to be valid when a ship is transferred to the flag of another State. New certificates shall not be issued until it is fully satisfied that the ship is being properly maintained and that there have been no unauthorized changes made to the structure, machinery and equipment.

6.2 When so requested, Administration of the State whose flag the ship was formerly entitled to fly is obliged to forward, as soon as possible, to the new Administration copies of certificates carried by the ship before the transfer and, if available, copies of the relevant survey reports and records, such as *Record of Safety Equipment* and *Conditions of Assignment of Load Line*.

6.3 When fully satisfied by an inspection that the ship is being properly maintained and that there have been no unauthorized changes, in order to maintain the harmonization of the surveys the new certificates having the same expiry date as the certificates that ceased to be valid may be issued.

6.4 For Flag States not signatory to the *SOLAS 1988 Protocol* and/or *Load Line 1988 Protocol*, the requirements for *SOLAS 1974, Regulation I/14* and/or for *LL 1966, Article 14* shall be observed.

6.5 For Flag States being Party of the *SOLAS* and *LL 1988 Protocols*, the *Survey Guidelines under the Harmonized System of Survey and Certification /IMO Resolution A.1140(31)*, shall be observed.

6.6 Surveys performed for the change of flag at a date which is outside of 6-month appropriate time windows for the periodical surveys of the corresponding certificate issued by, or on behalf of, the losing flag Administration are be understood as additional surveys which are performed solely for the purpose of the change of flag. These surveys do not replace the surveys required to be performed within the appropriate time windows of the harmonized systems.

6.7 If a vessel was constructed originally without a known flag State, BCS shall verify the vessel complies with national requirements of the gaining flag State Administration prior to issue the relevant certification.

6.8 The new flag, port of registry and ship's name shall be indicated in statutory documents (*Stability Booklet, SOPEP*, etc.) and life boats, life rafts, life buoys, etc.

6.9 If the change of flag is to be undertaken outside the harmonized system windows of the due dates for surveys of new certificates which are going to be issued by, or on behalf of, the gaining Flag Administration, then the scope of surveys for the main statutory certificates shall be:

- **.1** SOLAS – *Safety Construction Certificate*: Annual Survey;
- **.2** SOLAS – *Safety Radio Certificate*: Renewal Survey/Periodical Survey;
- **.3** SOLAS – *Safety Equipment Certificate*[1)]: Annual Survey;
- **.4** SOLAS – *Passenger Ship Safety Certificate*: the provisions of .1 + Lifesaving and Fire-fighting means and the provisions of .2;
- **.5** Load Line: Annual Survey;
- **.6** MARPOL Annex I: Annual Survey;
- **.7** MARPOL Annex II: Annual Survey;
- **.8** MARPOL Annex IV: Renewal Survey;
- **.9** MARPOL Annex VI: Annual Survey;
- **.10** *Certificate of Fitness for the Carriage of Dangerous Chemicals/Liquefied Gases in Bulk*: Annual Survey;

[1)] When changing from HSSC to non-HSSC, the following applies:
a) If change of flag occurs within 2 years of the initial/last renewal, an annual survey is required.
b) If change of flag occurs after 2 years of the initial/last renewal, a renewal survey is required.

.11 BWM Convention, 2004; *International Ballast Water Management Certificate*: Annual Survey;

6.10 For other statutory certificates not listed above, the scope of survey shall be at least the scope of the relevant annual survey.

6.11 If due dates for surveys of new certificates, which are going to be issued by, or on behalf of, the gaining Flag Administration, are within the applicable 6-month time windows for surveys, then the appropriate renewal or intermediate or periodical or annual surveys shall be performed. If justified, due consideration to the circumstances shall be given in order to avoid unreasonable burdens as could be inter-alia a necessary dry-docking of the ship for renewal survey of the *SOLAS Cargo Ship Safety Construction Certificate* or similar.

6.12 Surveys conducted within a three month time period prior to the date of change of flag may be credited towards change of flag with the exception of *SOLAS Safety Radio Certificate* survey.

6.13 If the BCS was not authorized by the previous flag State Administration for survey and/or certification or if the losing flag State Administration was not a party to the relevant convention, then appropriate initial/renewal surveys shall be performed for *SOLAS Safety Radio*, *Safety Equipment*, *Passenger Ship Safety Certificate*, *Load Line*, *MARPOL Annex I, Annex II, Annex IV* and *Annex VI, Certificate of Fitness for the Carriage of Dangerous Chemicals/Liquefied Gases in Bulk*, *International Ballast Water Management Certificate.*

6.14 The BCS obligation to address the information related to Change of Flag as specified by the gaining flag State Administration in terms of authorization. In case of Alternative Design and Arrangements or exemptions are involved, the information or documentation for approval of the Alternative Design and Arrangements or an exemption pertaining to statutory aspects should be addressed to the gaining flag State Administration for any further instructions.

SUPPLEMENT

CONTENTS

1 GENERAL

1.1 Annual and Intermediate Classification Survey Coverage of IMO Resolution A.1140(31)

1.1.1 The following text identifies the Annual and Intermediate Survey requirements of IMO Resolution A.1140(31) *Revised Survey Guidelines Under the Harmonized System of Survey and Certification* which are, as a minimum, to be covered by classification surveys (the paragraph numbers referred to are those of this resolution):

.1 Annual surveys:

- Loadline items – Annex 2, provision 1.2.2;
- Hull items – Annex 1, provisions 2.2.2.1÷2.2.2.7;
- Machinery and electrical items – Annex 1, provisions 2.2.2.8÷2.2.2.27 except for 2.2.2.18;
- Firefighting equipment – Annex 1, provisions 1.2.2.1÷1.2.2.10 (requirements pertaining to firefighting equipment are included in Part *VIII – Fire-fighting Equipment and Escape Equipment*);
- Oil tanker additional items (Deck foam and inert gas systems, steering gear, hull, machinery and equipment) – Annex 1, provisions 1.2.3 and 2.2.3 ;
- Chemical tanker additional items (Steering gear, structure, equipment, fittings, arrangements and materials) – Annex 4, provisions 2.2.4.1 and 1.2.2.1÷1.2.2.19;
- Gas carrier additional items (Steering gear, structure, equipment, fittings, arrangements and materials) – Annex 1, provisions 2.2.4.1 and 2.2.2.1÷2.2.2.29 except for 2.2.2.26 (fireman's outfit);

.2 Intermediate surveys:

The intermediate survey shall consist of the annual survey items specified above plus the following items:

- Ballast tanks and cargo spaces – Annex 1, provision 2.3.2;
- Oil tanker additional items (Piping systems and cargo tanks and electrical circuits in dangerous zones) – Annex 1, provisions 2.3.3.1÷2.3.3.3;
- Chemical tanker additional items (Steering gear, structure, equipment, fittings, arrangements and materials) – Annex 1, provisions 2.3.4 and Annex 4, provisions 1.3.2.2÷1.3.2.6;
- Gas carrier additional items (Steering gear, structure, equipment, fittings, arrangements and materials) – Annex 1, provisions 2.3.4 and Annex 4, provisions 2.3.2.2 through 2.3.2.5.

2 SURVEYS FOR THE CARGO SHIP SAFETY EQUIPMENT CERTIFICATES

(under res. A.1140(31))

2.1 Initial Surveys

2.1.1 For the life-saving appliances and the other equipment of cargo ships the scope of examination is described in Annex 1, Ch. 1.1 of res. A.1140(31).

2.1.2 The completion of the initial survey shall consist of:

.1 after a satisfactory result, issuing the *Cargo Ship Safety Equipment Certificate* and its associated *Record of Equipment* (Form E).

2.2 Annual Surveys

2.2.1 For the life-saving appliances and the other equipment of cargo ships the scope of examination is described in Annex 1, Ch. 1.2 of res. A.1140(31).

2.2.2 The completion of the annual survey shall consist of:

.1 after satisfactory survey, endorsing the *Cargo Ship Safety Equipment Certificate*;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

2.3 Periodical Surveys

2.3.1 For the life-saving appliances and the other equipment of cargo ships the scope of examination is described in Annex 1, Ch. 1.3 of res. A.1140(31).

2.3.2 The completion of the periodical survey shall consist of:

.1 after a satisfactory survey, endorsing the Cargo *Ship Safety Equipment Certificate*;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

2.4 Renewal Surveys

2.4.1 For the life-saving appliances and the other equipment of cargo ships the scope of examination is described in Annex 1, Ch. 1.4 of res. A.1140(31).

2.4.2 The completion of the renewal survey shall consist of:

.1 after a satisfactory result, issuing the *Cargo Ship Safety Equipment Certificate* and its associated *Record of Equipment* (Form E) .

3 SURVEYS FOR THE CARGO SHIP SAFETY CONSTRUCTION CERTIFICATE

(under res. A.1140(31))

3.1 Initial Surveys

3.1.1 For hull, machinery and equipment of cargo ships, the scope of examination is described in Annex 1, Ch. 2.1 of res. A.1140(31).

3.1.2 The completion of the initial survey shall consist of:

.1 after a satisfactory survey, issuing the *Cargo Ship Safety Construction Certificate*.

3.2 Annual Surveys

3.2.1 For hull, machinery and equipment of cargo ships, the scope of examination is described in Annex 1, Ch. 2.2 of res. A.1140(31).

3.2.2 The completion of the annual survey shall consist of:

.1 after a satisfactory survey, endorsing the *Cargo Ship Safety Construction Certificate*;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

3.3 Intermediate Surveys

3.3.1 For hull, machinery and equipment of cargo ships, the scope of examination is described in Annex 1, Ch. 2.3 of res. A.1140(31).

3.3.2 The intermediate survey shall consist of:

.1 after a satisfactory survey, endorsing the *Cargo Ship Safety Construction Certificate*;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

3.4 Renewal Surveys

3.4.1 For hull, machinery and equipment of cargo ships, the scope of examination is described in Annex 1, Ch. 2.4 of res. A.1140(31).

3.4.2 For the hull, machinery and equipment of cargo ships, the completion of the renewal survey shall consist of:

.1 after a satisfactory survey, issuing the *Cargo Ship Safety Construction Certificate*.

4 INSPECTION OF THE OUTSIDE OF THE SHIP'S BOTTOMOF CARGO SHIPS
(under res. A.1140(31))

4.1 For the inspection of the outside of the ship's bottom of cargo ships, the scope of examination is described in Annex 1, Ch. 3 of res. A.1140(31), as amended.

4.2 The completion of the inspection shall consist of:

.1 after a satisfactory survey, endorsing the *Cargo Ship Safety Construction Certificate*;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations.*

5 SURVEYS FOR THE CARGO SHIP SAFETY RADIO CERTIFICATE
(under res. A.1140(31))

5.1 General

5.1.1 Scope of survey performed by BCS Surveyor:

– checking the certificates and documents onboard the ship;
– checking the scope of installed equipment;
– checking the arrangement, fixing and general condition of radio equipment;
– checking the arrangement and general condition of all antennas;
– checking condition of earthing;
– checking energy sources and radio devices supply;
– checking the charge condition of reserve accumulator batteries;
– checking the batteries' expiry date of portable radio devices.

5.1.2 Operation tests of the radio devices and parameter measurements shall be performed by service firm specialist recognized by BCS in accordance with the mandatory procedures given in BCS-R Z17– *Procedural Requirements for Service Suppliers* . It is recommended that the BCS Surveyor should take part in service firm specialist's activities as a supervisor.

5.1.3 Service firm specialist carrying out the radio survey is not allowed to take part in repairing of the radio devices being already surveyed.

5.1.4 Upon the completion of a survey, service firm specialist shall sign and stamp *Record of Ship Safety Radio Equipment* (Form 353) and *Report of Ship Safety Radio Survey* (Form 354), as appropriate, prepared by the BCS Surveyor;

5.1.5 If the service firm specialist cannot sign and stamp the a.m. record and report of survey, the measurement report prepared by him shall be sent to BCS Head Office , because it conditions the issuance of permanent *Safety Radio Certificate* by BCS Head Office;

5.1.6 After a satisfactory survey, measurement report shall include the statement, as follows: „All major operating facilities and specifications of the equipment have been tested and found to function in accordance with the relevant SOLAS regulations and associated IMO performance standards".

5.2 Initial Surveys

5.2.1 For the radio installations, including those used in life-saving appliances, of cargo ships, the scope of examination is described in Annex 1, Ch. 4.1 of res. A.1140(31).

5.2.2 The completion of the initial survey shall consist of:

.1 after a satisfactory survey, issuing the *Cargo Ship Safety Radio Certificate* and the associated *Record of Equipment* (Form R).

5.3 Periodical Surveys

5.3.1 For the radio installations, including those used in life-saving appliances, of cargo ships, the scope of examination is described in Annex 1, Ch. 4.2 of res. A.1140(31).

5.3.2 The completion of the periodical survey shall consist of:

.1 after a satisfactory survey, endorsing the *Cargo Ship Safety Radio Certificate*;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

5.4 Renewal Surveys

5.4.1 For the radio installations, including those used in life-saving appliances, of cargo ships, the scope of examination is described in Annex 1, Ch. 4.3 of res. A.1140(31).

5.4.2 The completion of the renewal survey shall consist of:

.1 after a satisfactory survey, issuing the *Cargo Ship Safety Radio Certificate* and the associated *Record of Equipment* (Form R).

6 SURVEYS FOR THE PASSENGER SHIP CERTIFICATE

(under res. A.1053, as amended)

6.1 Initial Surveys

6.1.1 For the hull, machinery and equipment of passenger ships, the scope of examination is described in Annex 1, Ch. 5.1 of res. A.1140(31).

6.1.2 The completion of the initial survey shall consist of:

.1 after a satisfactory survey, issuing the *Passenger Ship Safety Certificate* and its associated *Record of Equipment* (Form P).

6.2 Renewal Surveys

6.2.1 For the hull, machinery and equipment of passenger ships, the scope of examination is described in Annex 1, Ch. 5.2 of res. A.1140(31).

Note:
During the survey of radio installations, including those used in life-saving appliances, requirements of subchapter 5.1 of this *Part* of the *Rules* shall be complied with.

6.2.2 The completion of the renewal survey shall consist of:

.1 after a satisfactory survey, issuing the *Passenger Ship Safety Certificate* and its associated *Record of Equipment* (Form P).

7 SURVEYS FOR THE INTERNATIONAL LOAD LINE CERTIFICATE OR INTERNATIONAL LOAD LINE EXEMPTION CERTIFICATE

(under res. A.1140(31))

7.1 Initial Surveys

7.1.1 For the load line, the scope of examination is described in Annex 2, Ch. 1.1 of res. A.1053(27), as amended.

7.1.2 The completion of the initial survey shall consist of:

.1 after a satisfactory survey, issuing the International Load Line Certificate or International Load Line Exemption Certificate.

7.2 Annual Surveys

7.2.1 For the load line, the scope of examination is described in Annex 2, Ch. 1.2 of res. A.1140(31).

7.2.2 The completion of the annual survey shall consist of:

.1 after a satisfactory survey, endorsement of the International Load Line Certificate or International Load Line Exemption Certificate;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

7.3 Renewal Surveys

7.3.1 For the load line, the scope of examination is described in Annex 2, Ch. 1.3 of res. A.1140(31).

7.3.2 The completion of the renewal survey shall consist of:

.1 after satisfactory survey, issuing the *International Load Line Certificate* or *International Load Line Exemption Certificate.*

8 SURVEYS FOR THE INTERNATIONAL OIL POLLUTION PREVENTION CERIFICATE

(under res. A.1140(31))

8.1 Initial Surveys

8.1.1 For oil pollution prevention, the scope of examination is described in Annex 3, Ch. 1.1 of res. A.1140(31).

8.1.2 The completion of initial survey shall consist of:

.1 after satisfactory survey, issuance of the International Oil Pollution Prevention Certificate.

8.2 Annual Surveys

8.2.1 For oil pollution prevention, the scope of examination is described in o Annex 3, Ch. 1.2 of res. A.1140(31).

8.2.2 The completion of the annual survey shall consist of:

.1 after a satisfactory survey, the International Oil Pollution Prevention Certificate shall be endorsed;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

8.3 Intermediate Surveys

8.3.1 For oil pollution prevention, the scope of examination is described in Annex 3, Ch. 1.3 of res. A.1140(31).

8.3.2 The completion of the intermediate survey shall consist of:

.1 after a satisfactory survey, endorsing the International Oil Pollution Prevention Certificate;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

8.4 Renewal Surveys

8.4.1 For oil pollution prevention, the scope of examination is described in Annex 3, Ch. 1.4 of res. A.1140(31).

8.4.2 The completion of the renewal survey shall consist of:

.1 after a satisfactory survey, issuing the International Oil Pollution Prevention Certificate.

9 SURVEYS FOR THE INTERNATIONAL POLLUTION PREVENTION CERTIFICATE FOR THE CARRIAGE OF NOXIOUS LIQUID SUBSTANCES IN BULK *(under res. A.1140(31))*

9.1 Initial Surveys

9.1.1 For the carriage of noxious liquid substances in bulk (the ship is to be certified to carry), the scope of examination is described in Annex 3, Ch. 2.1 of res. A.1140(31).

9.1.2 The completion of initial survey shall consist of:

.1 after satisfactory survey, issuing the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk.

9.2 Annual Surveys

9.2.1 For the carriage of noxious liquid substances in bulk (the ship shall be certified to carry), the scope of examination is described in Annex 3, Ch. 2.2 of res. A.1140(31).

9.2.2 The completion of annual survey shall consist of:

.1 after satisfactory survey, endorsing the International Certificate for the Carriage of Noxious Liquid Substances in Bulk;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

9.3 Intermediate Surveys

9.3.1 For the carriage of noxious liquid substances in bulk (the ship shall be certified to carry), the scope of examination is described in Annex 3, Ch. 2.3 of res. A.1140(31).

9.3.2 The completion of intermediate survey shall consist of:

.1 after satisfactory survey, endorsing the International Certificate for the Carriage of Noxious Liquid Substances in Bulk;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

9.4 Renewal Surveys

9.4.1 For the carriage of noxious liquid substances in bulk (the ship shall be certified to carry), the scope of examination is described in Annex 3, Ch. 2.4 of res. A.1140(31).

9.4.2 The completion of renewal survey shall consist of:

.1 after satisfactory survey, issuing the International for the Carriage of Noxious Liquid Substances in Bulk.

10 SURVEYS FOR THE INTERNATIONAL SEWAGE POLLUTION PREVENTION CERTIFICATE *(under res. A.1140(31))*

10.1 Initial Surveys

10.1.1 For sewage pollution prevention, the scope of examination is described in Annex 3, Ch. 3.1 of res. A.1140(31).

10.1.2 The completion of the initial survey shall consist of:

.1 after a satisfactory survey, issuing the International Sewage Pollution Prevention Certificate.

10.2 Renewal Surveys

10.2.1 For sewage pollution prevention, the scope of examination is described in Annex 3, Ch. 3.2 of res. A.1140(31).

10.2.2 The completion of the renewal survey shall consist of:

.1 after a satisfactory survey, issuing the International Sewage Pollution Prevention Certificate.

11 SURVEYS FOR THE GARBAGE POLLUTION PREVENTION CERTIFICATE OF COMPLIANCE *(under MARPOL 73/78/2011/V)*

11.1 Initial Surveys

11.1.1 For garbage pollution prevention, the examination of plans and designs shall consist of:

.1 checking that the Garbage Management Plan is on board;[1)]

.2 checking that the Garbage Record Book is on board, and the entries are made regularly and correctly;

.3 checking, where there is a garbage incinerator installed on board the ship, that the Type Approval Certificate for the plant, confirming that it was manufactured and tested, for incinerators installed before the 1 January 2000 in accordance with the IMO resolution MEPC.59(33), and in accordance with the requirements of resolution MEPC.76 (40), as amended by MEPC 93(45) for incinerators with a capacity of up to 1500 kW, and in accordance with the requirements of resolution MEPC.244 (66) for incinerators with a capacity of up to 4000 kW installed after that date, is provided;

.4 confirming, where there are garbage processing appliances (grinders and compactors) installed on board the ship, that the makers certificates are provided;

.5 confirming that the instructions for the operation of the equipment mentioned in 11.1.1.3 and 11.1.1.4 are provided, and the instructions are displayed in the compartments in which the equipment is installed and they are legible and easily accessible.

11.1.2 For garbage pollution prevention, the survey during construction and after installation shall consist of:

.1 checking whether permanently fixed and legible placards written in the official language of the flag State and additionally in English, French or Spanish which notify of the garbage management rules are displayed on the ship in places like bridge, mess-rooms, pantries, galleys, entrances to the deck and in the vicinity of the garbage storage receptacles;

.2 examining the condition of the incinerator and associated fittings;

.3 testing the correctness of the incinerator operation and its safeguards, and in particular:
- automatic and hand operation of the incinerator;
- possibility to switch off the incinerator from two independent posts including one remotely;
- safeguards against self-opening of the combustion chamber cover in case of a back pressure;
- stopping the burner operation in case of disruptions (decay or decline of the combustion chamber air supply pressure, decay of the current supply, decay of the burner flame);
- functioning of sound and visual signalling in the case of the incinerator operation disruptions;

.4 testing the correctness of the garbage processing appliances operation and their safeguards;

.5 confirming that the receptacles for garbage collection and storage are provided and that they are arranged, fastened and marked in compliance with the *Garbage Management Plan*.

11.1.3 For garbage pollution prevention, the completion of the initial survey shall consist of:

.1 after a satisfactory survey, issuing the Garbage Pollution Prevention Certificate of Compliance.

11.2 Renewal Surveys

11.2.1 For garbage pollution prevention, the renewal survey shall consist of:

.1 the provisions of 11.1.1 and 11.1.2.

11.2.2 Completion of the renewal survey shall consist of:

.1 after a satisfactory survey, issuing the Garbage Pollution Prevention Certificate of Compliance.

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1) For ships flying the Pakistan flag and ships flying other than the Pakistan flag request BCS conduct the ship survey and issue the certificate of survey for compliance with the requirements specified in Annex V to *MARPOL 73/78*, *Plan* prepared in accordance with the requirements of the IMO *resolution MEPC.220(63)* shall be verified by BCS Head Office.

12 SURVEYS FOR MARPOL ANNEX VI CERTIFICATES (THE INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE AND NO_X TECHNICAL CODE (*under res. A.1140(31)*) AND THE INTERNATIONAL ENERGY EFFICIENCY CERTIFICATE (*under MARPOL Annex VI, Chapter 4*))

12.1 Surveys For the *International Air Pollution Prevention Certificate* and *NO_x Technical Code* (*under Res. A.1053(27),as amended)*

12.1.1 Initial Survey

12.1.1.1 For air pollution prevention, the scope of examination is described in Annex 3, Ch. 4.1 of res. A.1140(31).

12.1.1.2 The completion of the initial survey shall consist of:

.1 after satisfactory survey, issuing the International Air Pollution Prevention Certificate.

12.1.2 Annual Survey

12.1.2.1 For air pollution prevention, the scope of examination is described in Annex 3, Ch. 4.2 of res. A.1140(31)**.**

12.1.2.2 The completion of the annual survey shall consist of:

.1 after a satisfactory survey, endorsing the International Air Pollution Prevention Certificate;

.2 if a survey shows that the condition of the ship or its equipment is unsatisfactory – see *Part I – Survey Regulations*, paragraph 1.4.8.

12.1.3 Intermediate Survey

12.1.3.1 For air pollution prevention, the scope of examination is described in Annex 3, Ch. 4.3 of res. A.1140(31).

12.1.3.2 The completion of the intermediate survey shall consist of:

.1 after a satisfactory survey, endorsing the International Air Pollution Prevention Certificate;

.2 if a survey shows that the condition of the ship or its equipment is unsatisfactory see – see *Part I – Survey Regulations*, paragraph 1.4.8.

12.1.4 Renewal Survey

12.1.4.1 For air pollution prevention, the scope of examination is described in Annex 3, Ch. 4.4 of res. A.1140(31).

12.1.4.2 The completion of the renewal shall consist of:

.1 after satisfactory survey, issuing of the International Air Pollution Prevention Certificate.

12.2 Surveys for the International Energy Efficiency Certificate (*under MARPOL Annex VI, Chapter 4*)

Ships to which chapter 4 applies shall also be subject to the surveys specified below, taking into account *Guidelines on Survey and Certification of the Energy Efficiency Design Index (EEDI)* (res. MEPC.254(67) and BCS-G 001E– *Guidelines on Ship Energy Efficiency*.

12.2.1 Initial Survey for a new ship

12.2.1.1 The survey shall verify that the ship's attained Energy Efficiency Design Index (EEDI) is in accordance with the requirements of Regulations 20 and 21 of Annex VI of *MARPOL* and that the *Ship Emergency Efficiency Management Plan (SEEMP)* required by regulation 22 of *MARPOL Annex VI* is on board.

12.2.1.2 The completion of the initial survey shall consist of:

.1 after a satisfactory survey, issuing the International Energy Efficiency Certificate.

12.2.2 General or Partial Survey after a major conversion of a ship

12.2.2.1 The survey shall ensure that the attained EEDI is recalculated as necessary and meets the requirement of regulation 20 and 21 of *MARPOL Annex VI*, with the reduction factor applicable to the ship type and size of the converted ship in the phase corresponding to the date of contract or keel laying or delivery determined for the original ship in accordance with regulation 2.23 of *Annex VI* to *MARPOL* .

12.2.2.2 The completion of the general or partial survey shall consist of:

.1 after a satisfactory survey, endorsing the International Energy Efficiency Certificate.

12.2.3 An Initial Survey on attained EEDI in case where the major conversion of a new or existing ship is so extensive that the ship is regarded by the Administration as a newly constructed ship

12.2.3.1 Such a survey, if determined necessary, shall ensure that the attained EEDI is calculated and meets the requirement of regulation 20 and 21 of *MARPOL Annex VI*, with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion. The survey shall also verify that the SEEMP required by regulation 22 of *MARPOL Annex VI* is on board ship.

12.2.3.2 The completion of the initial survey shall consist of:

after a satisfactory survey, issuing the *International Energy Efficiency Certificate.*

12.2.4 Initial Survey for an existing ship

12.2.4.1 For existing ships, the verification of the requirement to have a SEEMP on board according to regulation 22 of *MARPOL Annex VI* shall take place at the first intermediate or renewal survey identified in paragraph 1 of this regulation, whichever is the first, on or after 1 January 2013.

12.2.4.2 The completion of the initial survey shall consist of:

after a satisfactory survey, issuing the *International Energy Efficiency Certificate.*

12.2.5 Duration and Validity of the *International Energy Efficiency Certificate*

12.2.5.1 The *International Energy Efficiency Certificate* shall be valid throughout the life of the ship subject to the provisions specified below.

12.2.5.2 The *International Energy Efficiency Certificate* cease to be valid in any of the following cases:

.1 if the ship is withdrawn from service or if a new certificate is issued following major conversion of the ship; or

.2 upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the ship is in accordance with the requirements of chapter 4 of *MARPOL Annex VI*. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Government of the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificate carried by the ship before the transfer and, if available, copies of the relevant survey reports.

13 SURVEYS FOR THE INTERNATIONAL CERTIFICATE OF FITNESS FOR THE CARRIAGE OF DANGEROUS CHEMICALS IN BULK AND THE CERTIFICATE OF FITNESS FOR THE CARRIAGE OF DANGEROUS CHEMICALS IN BULK

(under res. A.1140(31))

13.1 Initial Surveys

13.1.1 For compliance with the *International Code of the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)* and *Code of the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code)*, the scope of examination is described in Annex 4, Ch. 1.1 of res. A.1140(31).

13.1.2 The completion of the initial survey shall consist of:

.1 after a satisfactory survey, issuing the International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk.

13.2 Annual Surveys

13.2.1 For compliance with the *IBC Code* and the *BCH Code*, the scope of examination is described in Annex 4, Ch. 1.2 of res. A.1140(31).

13.2.2 The completion of the annual survey shall consist of:

.1 after a satisfactory survey, endorsing the International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

13.3 Intermediate Surveys

13.3.1 For compliance with the *IBC Code* and the *BCH Code*, the scope of examination is described in Annex 4, Ch. 1.3 of res. A.1140(31).

13.3.2 The completion of the intermediate survey shall consist of:

.1 after a satisfactory survey, endorsing the International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

13.4 Renewal Surveys

13.4.1 For compliance with the *IBC Code* and the *BCH Code*, the scope of examination is described in Annex 4, Ch. 1.4 of res. A.1140(31).

13.4.2 The completion of the renewal survey shall consist of:

.1 after a satisfactory survey, issuing the *International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk* or *the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk*.

14 SURVEYS FOR THE INTERNATIONAL CERTIFICATE OF FITNESS FOR THE CARRIAGE OF LIQUEFIED GASES IN BULK *(under res. A.1140(31))*

14.1 Initial Surveys

14.1.1 For compliance with the *International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)*, the scope of examination is described in Annex 4, Ch. 2.1 of res. A.1140(31).

14.1.2 The completion of the initial survey shall consist of:
after a satisfactory survey, issuing the *International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk*.

14.2 Annual Surveys

14.2.1 For compliance with the *IGC Code*, the scope of examination is described in Annex 4, Ch. 2.2 of res. A.1140(31).

14.2.2 The completion of the annual survey shall consist of:

.1 after a satisfactory survey, endorsing the International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory – see 1.4.8 in *Part I – Survey Regulations.*

14.3 Intermediate Surveys

14.3.1 For compliance with the *IGC Code*, the scope of examination is described in Annex 4, Ch. 2.3 of res. A.1140(31).

14.3.2 The completion of the intermediate survey shall consist of:

.1 after a satisfactory survey, endorsing the *International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk*;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory – see 1.4.8 in *Part I – Survey Regulations*.

14.4 Renewal Surveys

14.4.1 For compliance with the *IGC Code*, the scope of examination is described in Annex 4, Ch. 2.4 of res. A.1140(31).

14.4.2 The completion of the renewal survey shall consist of:

.1 after a satisfactory survey, issuing the International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk.

15 SURVEYS FOR THE CERTIFICATE OF FITNESS FOR THE CARRIAGE OF DANGEROUS GOODS *(under SOLAS 1974 II-2/19 and SOLAS VII A/7)*

15.1 General

15.1.1 The present Chapter defines the scope of surveys for the carriage of dangerous goods in bulk and in packaged form, specified in *SOLAS Convention 74/00*, regulation II-2/19 (SOLAS 74/88 reg. II-2/54), covering all classes of dangerous goods.

15.1.2 In order to confirm that the ship is fit for the carriage of the declared dangerous goods in the given cargo space, compliance with the requirements for the particular class of goods shall be verified.

15.1.3 Classes of dangerous goods are in accordance with the *International Maritime Dangerous Goods Code (IMDG Code)*.

15.2 Occasional Survey

15.2.1 Verification of technical documentation, which specifies the requirements for ships carrying dangerous goods, covers checking the documentation of:

.1 water fire main system (calculation of the required quantity of water and the arrangement of fire hydrants);

.2 water-spraying fire-extinguishing system/ flooding the cargo space;

.3 electrical equipment fitted in cargo spaces (details of electrical components performance/certificates authorizing to use electrical components in the dangerous environments);

.4 fire detection and fire alarm system;

.5 ventilation systems in cargo spaces;

.6 bilge pumping system of cargo spaces;

.7 construction of boundaries separating cargo spaces from the machinery space of category A;

.8 the arrangement of fire-fighting equipment (SOLAS 74/00 reg. II-2/19 (excluding 19.4); FSS Code, Chapters 9 and 10) (SOLAS 74/88 reg. II-2/54).

15.2.2 The survey of the ship carrying dangerous goods covers checking compliance with the general requirements of *SOLAS Convention*, as well as the special requirements concerning the declared dangerous goods, given in Tables 15.2.2-1 and 15.2.2-2, respectively.

Table 15.2.2-1
Carriage of dangerous goods in bulk
(SOLAS reg. II-2/19, Table 19.2)

Class / Requirement (Regulation 19 of *SOLAS Convention*)	4.1	4.2	4.3[6]	5.1	6.1	8	9
3.1.1 (availability of water supply)	X	X	–	X	–	–	X
3.1.2 (required quantity of water)	X	X	–	X	–	–	X
3.2 (absence of sources of ignition)	X	X[7]	X	X[8]	–	–	X[8]
3.4.1 (power ventilation)	–	X[7]	X	–	–	–	–
3.4.2 (non-sparking fans)	X[9]	X[7]	X	X[7,9]	–	–	X[7,9]
3.4.3 (natural ventilation)	X	X	X	X	X	X	X
3.6 (personal protection means)	X	X	X	X	X	X	X
3.8 (insulation of machinery space boundaries)	X	X	X	X[7]	–	–	X[10]

X – applicable requirement

Table 15.2.2-2 (*SOLAS reg. II-2/19, Table 19.3)*
Carriage of dangerous goods in packaged form

	Class / Requirement (Regulation 19 of *SOLAS Convention*)	1.1 to 1.6 explosives	1.4 S	2.1 flammable gases	2.2 non-flammable gases	2.3 toxic gase [20]	2.3 non-flammable toxic gases	3 FP15 < 23°C liquids	3 23°C ≤ FP15≤ 60°C	4.1 flammable solids	4.2 substances liable to spantaneous combustion.	4.3 liquids [21]	4.3 solids	5.1 oxidizinig subst.	5.2 organic peroxides[16]	6.1 liquids FP15< 23°C	6.1 liquids 23°C ≤ FP15 ≤ 60°C	6.1 toxic liquids	6.1 toxic solids	8 liquids FP15 <23°C	8 liquids 23°C ≤ FP15 ≤ 60°C ≤ 60°C	8 corrosive liquids	8 corrosive solids	9 other dangerous substances
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
All ships	**3.1.1** (availability of water supply)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3.1.2 (required quantity of water)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	–
	3.1.3 (cooling cargo space with water)	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	3.1.4 (cooling cargo space with other suitable medium)	X	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	3.2 (absence of sources of ignition)	X	–	X	–	X	–	X	–	–	–	X[18]	–	–	–	X	–	–	–	X	–	–	–	X[17]
	3.3 (fire detection and fire alarm system)	X	X	X	X	–	X	X	X	X	X	X	X	X	–	X	X	X	X	X	X	X	X	–
	3.4.1 (power ventilation)	–	–	X	–	–	X	X	–	X[11]	X[11]	X	X	X[11]	–	X	X	–	X[11]	X	X	–	–	X[11]
	3.4.2 (non-sparking fans)	–	–	X	–	–	–	X	–	–	–	–	–	–	–	X	–	–	–	X	–	–	–	X[17]
	3.5 (bilge pumping)	–	–	–	–	–	–	X	–	–	–	–	–	–	–	X	X	X	–	X	X[19]	X[19]	–	–
	3.6 (personal protection means)	–	–	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X[14]

	3.7 (portable fire-extinguishers)	–	–	–	–	–	–	X	X	X	X	X	X	X	–	X	X	–	–	X	X	–	–	–
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	3.8 (insulation of boundaries)	X[12]	–	X	X	X	X	X	X	X	X	X	X	X[13]	X	X	X	–	–	X	X	–	–	–
Additionnally ro-ro ships	**3.9** (water-spraying system)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3.10.1 (separation of ro-ro spaces)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	3.10.2 (separation of ro-ro spaces)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

X – applicable requirement

Notes to Tables 15.2.2-1 and 15.2.2-2:

6 The hazards of substances in their class which may be carried are such that special consideration shall be given to the construction and equipment of the ship involved in addition to meeting the requirements enumerated in this table.

7 Only applicable to Seedcake containing solvent extraction, to Ammonium nitrate and to Ammonium nitrate fertilizers.

8 Only applicable to Ammonium nitrate and to Ammonium nitrate fertilizers. However, a degree of protection in accordance with standards contained in Publication IEC 60079 concerning electrical apparatus for explosive gas atmospheres, is sufficient.

9 Only suitable wire mesh guards are required.

10 The requirements of the *IMSBC Code* are sufficient.

11 Where mechanically ventilated spaces are required by the *IMDG Code*.

12 Stow 3 m horizontally away from the machinery space boundaries in all cases.

13 Refer to the *IMDG Code*.

14 As appropriate to the goods being carried.

15 FP is a flash point.

16 Under the provisions of the *IMDG Code*, stowage of Class 5.2 dangerous goods under deck or in enclosed ro-ro spaces is prohibited.

17 Only applicable to dangerous goods evolving flammable vapours, listed in the *IMDG Code*.

18 Only applicable to dangerous goods having a flash point below 23ºC, listed in the *IMDG Code.*

19 Only applicable to dangerous goods having a subsidiary risk of class 6.1.

20 Under the provisions of the *IMDG Code,* stowage of class 2.3 gases having a subsidiary risk of class 2.1 under deck or in enclosed ro-ro spaces is prohibited.

21 Under the provisions of the *IMDG Code,* stowage of class 4.3 liquids having a flash point below 23ºC under deck or in enclosed ro-ro spaces is prohibited.

15.2.2.1 General requirements:

.1 a fixed fire-extinguishing system installed in cargo spaces:

– operation test of the fire-extinguishing system installed in each cargo space (*SOLAS 74/00 reg. II-2/10.7.2)*;

.2 provision of additional 3 sets of fire hoses with nozzles:

– confirming that additional fire hoses are provided on board *(SOLAS 74/00 reg. II-2/10.2.3.2.3.1*).

15.2.2.2 Special requirements:

.1 Water supplies (3.1*):

1.1 Availability of a supply of water (3.1.1):

– operation test of automatic start of a fire pump on opening a fire hydrant (for permanently pressurized systems);

– testing remote starting of the fire pump from the navigation bridge (for dry-type pipes systems) (*SOLAS 74/00 reg. II-2/19.3.1.1) (SOLAS 74/88 reg. II-2/54.2.1.1)*.

1.2 The required quantity of water and the arrangement of fire hydrants (3.1.2):

– testing the supply of four jets of water to any part of the cargo space intended for the carriage of dangerous goods ** (*SOLAS 74/00 reg. II-2/19.3.1.2) (SOLAS 74/88 reg. II-2/54.2.1.2*).

1.3 Cooling the cargo space with water (3.1.3):

– operation test of water-spraying fire-extinguishing system for cooling the cargo space;

– operation test of the system for flooding the cargo space;

– operation test of the cargo space drainage system *(SOLAS 74/00 reg. II-2/10.3.1.3) (SOLAS 74/88 reg. II-2/54.2.1.3)*.

1.4 Cooling the cargo space with other suitable medium (3.1.4):

– operation test of the system cooling the cargo space with other suitable medium, e.g. high-expansion foam system *(SOLAS 74/00 reg. II-2/19.3.1.4) (SOLAS 74/88reg. II-2/54.2.1.4)*.

.2 The absence of sources of ignition (3.2):

– checking that electrical equipment fitted in cargo spaces does not constitute a source of ignition of flammable vapours and that any other equipment which may constitute a source of ignition of flammable vapours is not installed in the cargo spaces *(SOLAS 74/00 reg. II-2/10.3.2) (SOLAS 74/88 reg. II-2/54.2.2)*.

.3 Fire detection and fire alarm system (3.3):

– operation test of fire detection and fire alarm system;

– operation test of a sample extraction smoke detection system *(SOLAS 74/00 reg. II-2/19.3.3) (SOLAS 74/88 reg. II-2/54.2.3)*.

.4 Ventilation:

4.1 Power ventilation (3.4.1):

– operation test of power ventilation in the cargo space *(SOLAS 74/00 reg. II-2/19.3.4.1) (SOLAS 74/88 reg. II-2/54.2.4.1)*.

4.2 Non-sparking fans (3.4.2):

– checking that exhaust fans are of non-sparking type (do not constitute the source of ignition) and that suitable wire mesh guards are provided over inlet and outlet openings *(SOLAS 74/00 reg. II-2/19.3.4.2) (SOLAS 74/88 reg. II-2/54.2.4.2)*.

4.3 Natural ventilation (3.4.3):

– operation test of natural ventilation *(SOLAS 74/00 reg. II-2/19.3.4.3) (SOLAS 74/88 reg. II-2/54.2.4.3)*.

.5 Bilge pumping system (3.5):

– operation test of bilge pumping system installed in the cargo space;

– operation test of scuppers *(SOLAS 74/00 reg. II-2/19.3.5) (SOLAS 74/88 reg. II-2/54.2.5)*.

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* Numbers in brackets refer to the requirements for particular dangerous goods, given in Tables 15.2.2-1 and 15.2.2-2.

** Two jets of water shall be supplied by a single length of hose each, two may be supplied by two coupled hose lengths each. In ro-ro spaces, all four jets of water, each supplied by a single length of hose, should reach any part of the space.

.6 Personal protection means (3.6):
- checking that the required chemical protective clothing and breathing apparatus, as well as spare charges are complete and in serviceable condition *(SOLAS 74/00 reg. II-2/19.3.6) (SOLAS 74/88 reg. II-2/54.2.6)*.

.7 Portable fire-extinguishers (3.7):
- checking the condition and arrangement of the required fire-extinguishers (*SOLAS 74/00 reg. II-2/19.3.7) (SOLAS 74/88 reg. II-2/54.2.7)*.

.8 Insulation of machinery space boundaries (3.8):
- external examination – checking the condition of A-60 Class fire division between the cargo space and the machinery space of category A (*SOLAS 74/00 reg. II-2/19.3.8) (SOLAS 74/88 reg. II-2/54.2.8)*.

.9 Water-spraying fire-extinguishing system fitted in ro-ro spaces (3.9):
- operation test of water-spraying fire-extinguishing system fitted in ro-ro spaces (*SOLAS 74/00 reg. II-2/19.3.9) (SOLAS 74/88 reg. II-2/54.2.9*).

.10 Separation of ro-ro spaces (3.10):
- checking the separation of enclosed ro-ro space *(SOLAS 74/00 reg. II-2/19.3.10) (SOLAS 74/88 regs. II-2/54.2.10 and 11)*.

15.2.3 The completion of the inspection shall consist of:

.1 after a satisfactory survey, issuing the Certificate of Fitness for the Carriage of Dangerous Goods.

15.3 Annual Survey

15.3.1 The Annual Survey of the ship carrying dangerous goods covers:

.1 the scope of the survey specified in 152.2.

15.3.2 The completion of the inspection shall consist of:

.1 after a satisfactory survey, endorsing the Certificate of Fitness for the Carriage of Dangerous Goods.

15.4 Renewal Survey

15.4.1 The Renewal Survey of the ship carrying dangerous goods covers:

.1 the scope of the survey specified in 15.2.2.

15.4.2 The completion of the inspection shall consist of:

.1 after a satisfactory survey, issuing the *Certificate of Fitness for the Carriage of Dangerous Goods*.

16 SURVEYS FOR THE HIGH-SPEED CRAFT SAFETY CERTIFICATE

(under HSC Code, 2000, obligatory for ships built on or after 1 July 2002)

16.1 General

16.1.1 Surveys for *High-speed Craft Safety Certificate* shall be performed in the scope determined in *HSC Code, 2000*.

16.2 Initial survey

16.2.1 Completion of the initial survey shall consist of:

.1 after satisfactory survey, issuing the *High-Speed Craft Safety Certificate,* with attached *Record of Equipment* and *Permit to Operate High-Speed Craft*.

16.3 Periodical survey

16.3.1 Completion of the periodical survey shall consist of:

.1 after satisfactory survey, issuing the *High-Speed Craft Safety Certificate*, with attached *Record of Equipment* and *Permit to Operate High-Speed Craft*;

.2 in case of unsatisfactory result of survey, refer to 1.4.8 of *Part I – Survey Regulations*.

16.4 Renewal survey

16.4.1 Completion of the renewal survey shall consist of:

.1 after satisfactory survey, issuing the *High-Speed Craft Safety Certificate*, with attached *Record of Equipment* and *Permit to Operate High-Speed Craft.*

17 SURVEYS FOR THE HIGH-SPEED CRAFT SAFETY CERTIFICATE *(under HSC Code, 1994, obligatory for ships built before 1 July 2002)*

17.1 Initial Surveys

17.1.1 Survey of technical documentation of hull, machinery and equipment of high-speed craft shall consist of:

.1 an appraisal of the assumptions made and limitations proposed in relation to loadings, environment, speed and maneuverability;

.2 an appraisal of the data supporting the safety of the design, obtained from calculations, tests and trials;

.3 a failure mode and effect analysis;

.4 an investigation into the adequacy of the contingency plans and various instructions to be supplied to the craft;

.5 checking the buoyancy and stability characteristics;

.6 checking the ballast system documentation;

.7 checking the watertight bulkheads arrangement, bulkheads construction and openings in bulkheads, as well as watertight doors controls, including hydraulic piping and electric cables;

.8 checking the arrangement of openings in the shell plating below the margin line, watertight door construction, sidescuttles, watertight decks, trunks, etc. as well as watertightness integrity above the margin line;

.9 an appraisal of the bilge piping diagram;

.10 an appraisal of the engine room devices, mechanisms and installations plans;

.11 checking the electrical installation diagrams;

.12 checking, if applicable, the emergency lighting arrangements;

.13 checking the fire pumps arrangement, fire mains, hydrants, hoses and nozzles, as well as the international shore connection;

.14 checking the list and distribution of the portable fire extinguishers and fireman's outfit;

.15 checking the fixed fire fighting installation arrangement and special arrangements in machinery spaces;

.16 checking the fuel, lubricating oil and other flammable oil piping;

.17 checking the structural fire protection arrangements and escape routes;

.18 checking the plans for protection of the special category spaces and other cargo spaces;

.19 checking, if applicable, protection arrangements for the ships carrying dangerous goods;

.20 checking the fixed fire detection and fire alarm system arrangement, public address system or other effective communication system;

.21 checking the adequacy of distribution of survival crafts, muster stations and means of access into the survival crafts;

.22 checking the technical documentation of survival crafts, their equipment, embarkation arrangements and launching and recovery arrangements;

.23 checking the adequacy of the distribution of distress flares and line throwing apparatus, ship's radio life-saving appliances and general alarm system;

.24 checking the adequacy of distribution of life buoys, lifebuoys with attached self-igniting lights, with self-activating smoke signals, with buoyant lifeline, as well as lifejackets, immersion suits and anti-exposure suits;

.25 checking the lighting plans for assembly stations, embarkation stations, corridors, stairways and emergency exits providing access to assembly and embarkation stations, as well as emergency source of power;

.26 checking the navigational lights arrangement and means of visual and acoustic signalling;
.27 checking the documentation of daylight signalling lamp;
.28 determining the list of navigational equipment to be surveyed and appraisal of installation documentation for magnetic compass, THD, gyro compass, radar, echo sounder, speed and distance measuring device, rudder angle indicator, rate-of-turn indicator, electronic position fixing receiver, Electronic Chart Display and Information System (ECDIS) with its backup system, Automatic Identification System (AIS), Voyage Data Recorder (VDR) and night vision devices;
.29 determining the declared sea areas, operational readiness maintenance of radio equipment and source of emergency power;
.30 determining the radio equipment to be surveyed, specifying primary and secondary means of alerting, if applicable;
.31 checking the installation documentation for radio equipment, as well as sources of power and antenna arrangement;
.32 checking the installation and securing arrangements of radio equipment for life saving appliances.

17.1.2 Survey of documentation to be carried on high-speed craft shall consist of:
.1 checking if S*afe Manning Document* is on board;
.2 checking if master and all crew members have all necessary diplomas and certificates required for the type of craft;
.3 checking if *Craft Operating Manual* is on board;
.4 checking if *Route Operational Manual* is on board;
.5 checking if *Training Manual* is on board;
.6 checking if *Maintenance and Servicing Manual* is on board;
.7 checking if stability booklet is on board;
.8 confirming that loading procedures and limitations, including maximum operational weight, centre of gravity position, distribution of load and, where practicable lashing procedures are on board;
.9 checking if the plan of maintaining sufficient amount of fuel is on board;
.10 checking if the *Contingency Plan* is on board;
.11 checking, if applicable, that the *Oil Pollution Prevention Plan* is on board;
.12 checking, if applicable, that the *Oil Record Book* is on board;
.13 checking, if applicable, that the *Garbage Record Book* is on board;
.14 checking, if applicable, that the *Garbage Management Plan* is on board;
.15 checking, if applicable, that the manifest, or detailed cargo plan for stowage of dangerous goods is on board;
.16 checking if contingency plans, including actions to be taken ashore for every possible scenario and giving data about Search and Rescue (SAR) services and local Administration and other organizations supplying equipment for actions taken by crew, are on board;
.17 checking if the fire protection plan is permanently posted or the brochure containing such plan is available and if the duplicate of that plan or brochure is kept in a clearly marked container protecting it from atmospheric influences, placed outside the superstructure, near the entrances;
.18 checking if for every passenger and crew member the emergency procedures instruction is provided and posted next to the seat, containing general plan and arrangement of emergency exits, fire fighting equipment and life saving appliances, as well as instruction for donning the lifejacket;
.19 checking if the curve or table of magnetic compass residual deviations and shadow sectors diagrams is posted by the radars;
.20 checking if the copy of *Certificate of Compliance* for voyage data recording system (VDR), issued yearly by service supplier, having manufacturer‘s authorization, dated according to compliance tests and with description of tests conditions is on board;
.21 checking that a copy of the *Automatic Identification System (AIS) Test Report*, issued after an annual survey by radio service company approved by BCS, is retained on board the ship;
.22 checking if radio and navigational devices manuals are on board;
.23 checking if on board life saving appliances maintenance manual is on board;

.24 checking if adequate and up-to-date charts and publications necessary for the intended voyage are on board;
.25 checking if the *International Code of Signals* is on board, near radio equipment station;
.26 checking the date of validity of *Radio Licence* issued by the Flag State;
.27 checking the radio operators certificates of persons operating the GMDSS radio equipment;
.28 checking if *GMDSS Log Book* is on board;
.29 checking if up-to-date *ITU Publications* are on board;
.30 checking if service manuals for all radio devices are on board – if at sea maintenance is declared as a means of ensuring operational readiness.

17.1.3 Initial survey of hull, machinery devices and equipment after installation on high-speed craft shall consist of:

.1 checking if in watertight compartments situated below the margin line there are means to check their tightness;
.2 checking if closings of openings of the weathertight constructions ensure weathertightness in all operational conditions;
.3 checking the effectiveness of draining the enclosed spaces, if applicable;
.4 an assessment of the roll and pitch stability on the first and/or any other craft of a series during the sea trials;
.5 checking, in case of air-cushion vehicle fitted with flexible skirts, that the skirts remain stable under all operational conditions;
.6 carrying out the inclining test in order to obtain stability information after permission and in presence of the surveyor;
.7 checking if the scales of draughts are accurately determined, located and marked at the bow and stern in a permanent manner;
.8 checking if craft is fitted with a reliable draught-indicating system, by which the bow and stern draughts can be determined in case when scales of draught are not located where they are easily readable, or operational constraints for a particular trade make it difficult to read;
.9 check that the design waterline is clearly marked amidships on the craft‘s outer sides with the letter H;
.10 checking if general emergency alarm is audible throughout all accommodation and normal crew working spaces and open decks, and that the sound pressure level is at least 10 dB(A) above ambient noise levels under way in normal cruise operation;
.11 checking if the alarm continues to function after it has been triggered until it is normally turned off or is temporarily interrupted by a message on the public address system;
.12 checking if public address system covers all areas where passengers and crew have access, escape routes, and places of embarkation into survival craft;
.13 checking if illuminated or luminous notices or video information system are provided for all sitting passengers to notify them of safety measures;
.14 checking if a seat is provided for each passenger and crew member for which the craft is certified to carry;
.15 checking if seats fitted in addition to those required by 17.1.3.14, which are not permitted to be used in hazardous navigational situations or potentially dangerous weather or sea conditions and do not comply with the requirements for seats designated for passengers and crew are properly secured and clearly identified as not being able to be used in hazardous situations;
.16 checking if seats are not obstructing access or use of any essential emergency equipment or means of escape;
.17 checking if one-hand-release safety belts of 3 point type or with shoulder harness are provided for all seats from which the craft may be operated for all craft with the g_{coll} collision design acceleration exceeding 3*g*;
.18 checking if safety belts are provided on passengers and crew seats;
.19 checking if public spaces, evacuation routes, exits and embarkation stations are clearly and permanently marked and illuminated;

.20 checking if all exits, together with their means of opening, are adequately marked for the guidance of passengers and rescue personnel outside the craft;

.21 checking if at least two unobstructed evacuation paths are available for the use of each person, if the evacuation paths are disposed so that adequate evacuation facilities are available in the event of any likely damage or emergency conditions and if an adequate lighting is supplied from the main and emergency sources of power;

.22 verifying the achievement of the required evacuation time by means of a practical demonstration conducted under controlled conditions and, in case of passenger craft, checking if the evacuation time is fully documented and verified by the Administration (an emergency evacuation demonstration shall be performed for all new designs of high-speed craft and for other craft where evacuation arrangements differ substantially from those previously tested);

.23 checking if provisions are made to prevent shifting of baggage, stores and cargo compartment contents;

.24 checking if shelves and overhead shelves for storage of carry-on baggage in passenger accommodation are provided with adequate means to prevent the luggage from falling out in any conditions that may occur;

.25 checking if noise level in crew and passengers' accommodations is kept low to enable the public address system to be heard (shall not exceed 75 dB(A));

.26 checking if maximum noise level in the operating compartment does not exceed 65 dB(A);

.27 checking if a design incorporating a power drive or an actuation system employing powered components for normal directional control provides a secondary means of actuating the device, unless an alternative system is provided;

.28 checking if the directional control system is constructed so that a single failure in one drive or system, as appropriate, will not render any other one inoperable or unable to bring the craft to a safe situation;

.29 checking if power drives for directional control devices, including those required to direct thrust forward or astern, become operative automatically within 5 seconds of power or other failure, if this is necessary to bring the craft to a safe condition;

.30 checking, in case of directional control systems operable also from other positions, if two-way communication is arranged between the operating station and these other positions;

.31 checking if adequate indications are provided at the operating station and at the other position from which craft may be operated to provide the person controlling the craft with verification of the correct response of the directional control device to this demand, and also indicate any abnormal responses or malfunction;

.32 checking if craft is provided with at least one anchor with its associated cable or cable and warp and means of recovery;

.33 checking if craft is provided with adequate and safe means for releasing the anchor and its cable and warp;

.34 checking if adequate arrangements are provided for two-way voice communication between the operating compartment and persons engaged in dropping, weighing or releasing the anchor;

.35 checking if anchoring arrangement is such that any surfaces against which cable may chafe (e.g. hawse pipes and hull obstructions) are designed to prevent the cable from being damaged or fouled;

.36 checking the operation of anchoring equipment;

.37 checking if towing arrangement is such that any surfaces against which the towing cable may chafe (e.g. fairleads) are of sufficient radius to prevent the cable from being damaged when under load;

.38 checking if the maximum permissible speed at which the craft may be towed is included in the Operating Manual;

.39 checking if suitable berthing arrangements are provided;

.40 checking if all separating divisions, ceilings or linings that are not fire-resisting divisions are of non-combustible or fire-restricting material;

.41 checking if, in case of insulation installed in areas where it could come into contact with any flammable fluids or their vapours, its surface is impermeable to such flammable fluids or vapours;

.42 checking if furniture and furnishings in public spaces and crew accommodation comply with standards;

.43 checking if any exposed surfaces in corridors and stairway enclosures, and bulkheads, wall, ceiling linings, as well as concealed or inaccessible spaces in all accommodation and service spaces and control stations are – as a minimum standard – constructed of materials having low flame-spread characteristics;

.44 checking if any thermal and acoustic insulation material not complying with 7.2.1 or 7.2.2 of HSC Code is made of non-combustible material;

.45 checking if void compartments, where low-density combustible materials are used to provide buoyancy, are protected from adjacent fire hazard areas by fire-resisting divisions, in accordance with tables 7.4.1 and 7.4.2 of HSC Code. Also, the spaces and closures to it shall be gastight but ventilated to atmosphere;

.46 checking if, in compartments where smoking is allowed, suitable non-combustible ash containers are provided. In compartments where smoking is not allowed, adequate notices shall be displayed;

.47 checking if exhaust gas pipes are arranged so that the risk of fire is kept to a minimum;

.48 checking if in accommodation and service spaces, control stations, corridors and stairways, air spaces enclosed with ceilings, panelling or linings are suitably divided by close-fitting draught stops spaced not more than 14 metres apart;

.49 checking if tanks containing fuel and other flammable fluids are separated from passenger, crew and baggage compartments by vapour-proof enclosures or cofferdams which are suitably ventilated and drained;

.50 checking if fuel oil tanks are not located in, or contiguous to, areas of major fire hazard;

.51 checking if every oil fuel pipe which, if damaged, would allow oil to escape from storage, settling or daily service tank is fitted with a cock or valve directly on the tank capable of being closed from a position outside the space concerned in the event of a fire occurring in the space in which such tanks are situated;

.52 checking the operation of cut-off valves operated manually or remotely;

.53 checking if pipes, valves and couplings conveying flammable fluids are of steel or such alternative material in respect of strength and fire integrity;

.54 checking, on every craft where fuel with a flashpoint below 43 ºC is used, if the arrangement of stowage, distribution and utilization of the fuel complies with the requirements of 7.5.6 of the *HSC Code*;

.55 checking the possibility of closing main inlets and outlets of all ventilation systems from outside the spaces being ventilated. In addition, such openings to areas of major fire hazard shall be capable of being closed from a continuously manned control station;

.56 checking if there is a possibility of stopping the ventilation fans from outside the spaces which they serve and from outside the spaces in which they are installed. Ventilation fans serving areas of major fire hazard shall be capable of being operated from a continuously manned control station. The means provided for stopping the power ventilation to the machinery space shall be separated from the means provided for stopping ventilation of other spaces;

.57 checking if automatic damage-resistant fire dampers are fitted on the ventilation ducts which cross the fire-resisting or smoke tight division;

.58 checking if dampers fitted on fire-resisting or smoke-tight divisions are also capable of being closed manually from each side of the division in which they are fitted, and remotely closed from the continuously manned control station;

.59 checking if areas of major and moderate fire hazard and other enclosed spaces in the accommodation, which are not regularly occupied, are provided with an approved automatic smoke-detection system and manually operated call points;

.60 checking if main propulsion machinery rooms are provided with detectors other than smoke detectors, or supervised by TV cameras monitored from the operating compartment;

.61 checking if manually operated call points are installed throughout the accommodation spaces, service spaces and, where necessary, control stations;

.62 checking the operation of fire detection system and manual call points;

.63 checking if fixed fire-detection and fire alarm systems comply with requirements 7.7.2.1 of the *HSC Code*;

.64 checking if fixed fire-detection and fire alarm systems comply with installation requirements given in 7.7.2.2 of the *HSC Code*;

.65 checking if major fire hazard areas are protected by an approved fixed extinguishing system adequate for the fire hazard that may exist and operable from the control position;

.66 checking if the system is adapted to local manual control and remote control from the continuously manned stations;

.67 checking if fixed fire-extinguishing systems comply with 7.7.6.1 of the *HSC Code*;

.68 checking if carbon dioxide systems comply with 7.7.6.2 of the *HSC Code*;

.69 checking if control stations, accommodation spaces and service spaces are provided with portable fire extinguishers of appropriate types. At least five portable extinguishers shall be provided, and so positioned as to be readily available for immediate use. In addition, at least one extinguisher suitable for machinery space fires shall be positioned outside each machinery space entrance;

.70 checking if all portable fire extinguishers are being inspected periodically;

.71 checking if fire pumps, and other appropriate associated equipment, or alternative effective fire-extinguishing systems are fitted and comply with 7.7.8 of the *HSC Code*;

.72 checking the operation of all fire pumps;

.73 checking if boundaries of special-category spaces are insulated in accordance with tables 7.4-1 and 7.4-2 of the *HSC Code*;

.74 checking if indicators showing if any door leading to or from the special-category space is closed are provided on the navigating bridge;

.75 checking if each special-category space is fitted with an approved manually operated fixed pressure water-spraying system or other, equally effective installation approved by Administration;

.76 checking the operation of fixed fire-fighting installation;

.77 checking if a continuous fire patrol is maintained in special-category spaces, unless a fixed fire-detection and fire alarm system with a television surveillance system are provided;

.78 checking if manually operated call points are provided as necessary throughout the special-category spaces. One call point shall be placed close to each exit from such spaces;

.79 random check of manual call points;

.80 checking if each special-category space is provided with at least three water fog applicators and one portable foam applicator unit consisting of an air-foam nozzle and an inductor capable of being connected to the fire main by the fire hose;

.81 checking if at least two foam applicator units are available in the craft for use in special-category spaces and at least three portable fire extinguishers located so that no point in the space is more than approximately 15 m walking distance from an extinguisher, provided that at least one portable extinguisher is located at each access to such space;

.82 checking if ventilation system meets the requirements of 7.8.5 of *HSC Code*;

.83 checking the effectiveness of rapid shutdown and closure of ventilation system;

.84 checking if scuppers are fitted on the decks to ensure rapid discharge of water overboard. Alternatively, pumping and drainage facilities shall be provided;

.85 checking if on any deck or platform, if fitted, on which vehicles are carried and on which explosive vapours might be expected to accumulate, equipment which may constitute a source of ignition of flammable vapours and, in particular, electrical equipment and wiring is installed at least 450 mm above the deck platform. However, if the installation of the electrical equipment and wiring at less than 450 mm above the deck platform is necessary for the safe operation of the craft, such electrical equipment and wiring may be installed provided that it is of a type approved for use in explosive mixture of petrol and air;

.86 checking if electrical equipment and wiring installed in an exhaust ventilation duct are of a type approved for use in explosive mixture of petrol and air;

.87 checking if all openings, except for the hatches between cargo, special-category spaces, store and baggage spaces, and between such spaces and the weather decks, are provided with permanently attached means of closing at least as effective for resisting fires as the divisions in which they are fitted;

.88 checking if it is possible for each door to be opened and closed from each side of the bulkhead by only one person;

.89 checking if fire doors in bounding areas of major fire hazard and stairway enclosures satisfy the requirements of 7.9.3.3 of *HSC Code*;

.90 checking the operation of remote and local closing/opening of the fire doors;

.91 checking if all crafts, other than category A passenger crafts, are provided with at least two fireman's outfits complying with the requirements of 7.10.3 of *HSC Code*;

.92 checking if category B passenger crafts are provided with at least two fireman's outfits and two sets of personal equipment for every 80 meters of the aggregate of the length of all passenger spaces and service spaces on the deck which carries such spaces. Each personal set shall comprise the items stipulated in 7.10.3.1.1 to 7.10.3.1.3 of *HSC Code*;

.93 checking if category B passenger crafts are provided with one water-fog applicator for each pair of breathing apparatuses. An applicator shall be stowed adjacent to such apparatus;

.94 checking if fireman's outfits or personal equipment are easily accessible and ready for use and, where more than one fireman's outfit or more than one set of personal equipment is carried, they are stored in widely separated positions;

.95 checking if, on passenger crafts, at least one fireman's outfit and one set of personal equipment is available at any control station;

.96 checking if fireman's outfit and breathing apparatuses meet the requirement 7.10.3 of *HSC Code*;

.97 in case of passenger crafts, checking if:

- ventilation fans of each zone in the accommodation spaces are also capable of being independently controlled from a continuously manned control station;
- public spaces and service spaces, storage rooms other than those containing flammable liquids, and similar spaces are protected by a fixed sprinkler system. Manually operated sprinkler system shall be divided into sections of appropriate size, and the valves for each section, start of sprinkler pumps and alarms shall be operable from two spaces separated as widely as possible, one of which shall be a continuously manned control station;

.98 in case of cargo crafts, checking if cargo spaces, except open deck areas or refrigerated holds, are provided with an automatic smoke-detection system and fixed quick-acting fire-extinguishing system operable from the control station;

.99 checking if the life-saving appliances and their arrangements meet the requirements of chapter III of the *SOLAS Convention* and that they are approved by the Administration;

.100 checking if the life-saving appliances are of an approved type and have successfully undergone tests specified in *IMO res. A.520(13), A.689(17) and MSC.81(70), as amended*;

.101 checking if life-saving appliances are marked with production or validity date;

.102 in case of passenger high-speed craft and cargo high-speed craft of 500 tons and upwards, checking if craft is provided with:

- at least three two-way VHF radiotelephone apparatuses;
- at least one radar transponder;
- at least one search and rescue locating device (AIS SART) – if fitted;

.103 checking if radar transponders are stowed in such locations that they can be rapidly placed in any one of the liferafts;

.104 checking if search and rescue locating device (AIS SART) is stowed in such location that it can be rapidly placed in any one of the liferafts;

.105 checking if craft is provided with an emergency means of communication comprising of either fixed or portable equipment or both for two-way communications between emergency control stations, muster and embarkation stations and strategic positions on board;

.106 checking the operation of communication systems;

.107 checking if craft is provided with general emergency alarm system complying with the requirements of regulation III/6.4 of the *SOLAS Convention*, operable from the operating compartment;

.108 checking the operation of general emergency alarm system;

.109 checking if craft is provided with a portable daylight signaling lamp which is available for use in the operating compartment at all times and which is not dependent on the craft's main source of electrical power;

.110 checking if craft is provided with at least 12 rocket parachute flares complying with the requirements of regulation III/3.1. of the *LSA Code*, stowed in or near the operating compartment;

.111 checking if at least one lifebuoy with a self-igniting light and a self-activating smoke signal is provided on each side of the craft. Such lifebuoy shall be capable of quick release from the control position and from a position at or near where it is stowed;

.112 checking if at least one lifebuoy is provided adjacent to each normal exit from the craft and on each open deck to which passengers and crew have access;

.113 checking if lifebuoys fitted adjacent to each normal exit from the craft are fitted with buoyant lines of at least 30 m in length;

.114 checking if at least half the total number of lifebuoys is fitted with self-igniting lights. However, the lifebuoys provided with self-igniting lights shall not include those provided with lines in accordance with .112;

.115 checking if a lifejacket complying with the requirements of regulation 2.2.1 and 2.2.2 of the *LSA Code* is provided for every person on board the craft and, in addition:

- checking if a number of lifejackets suitable for children equal to at least 10% of the number of passengers on board is provided or such greater number as may be required to provide a lifejacket for each child;
- checking if passenger craft carries additional lifejackets for not less than 5% of the total number of persons on board. These lifejackets shall be stowed in conspicuous places on deck or at muster stations;
- checking if a sufficient number of additional lifejackets is carried for persons on watch and for use at remotely located survival craft and rescue boat stations;

.116 checking if all lifejackets are fitted with a light, which complies with the requirements of regulation 2.2.3 of *LSA Code*;

.117 checking if lifejackets are so placed as to be readily accessible and their positions are clearly indicated;

.118 checking if an immersion suit, of an appropriate size, complying with the requirements of regulation 2.3 of *LSA Code* is provided for every person assigned to crew the rescue boat;

.119 checking if an immersion suit or anti-exposure suit is provided for each member of the crew assigned, in the muster list, to duties in Maritime Evacuation System (MES) party for embarking passengers into survival craft. These immersion suits or anti-exposure suits need not be required if the craft is constantly engaged on voyages in warm climates where, in the opinion of the Administration, such suits are unnecessary;

.120 checking if clear instructions to be followed in the event of an emergency are provided for each person on board;

.121 checking if muster lists complying with the requirements of regulation III/8 of the *SOLAS Convention* are exhibited in conspicuous places throughout the craft;

.122 checking if illustrations and instructions in appropriate languages are posted in public spaces and are conspicuously displayed at muster stations, at other passenger spaces and near each seat to inform passengers of:

- their muster station;
- the essential actions they must take in an emergency;
- the method of donning lifejackets;

.123 checking if a Training Manual is provided in each crew mess-room and recreation room;

.124 checking if posters or signs which are visible in emergency lighting are provided on or in the vicinity of survival craft and their launching controls illustrating the purpose of controls and the procedures for operating the appliances;

.125 checking if survival craft is so stowed as to permit release from their securing arrangements at or near their stowage position on the craft and from a position at or near the operating compartment;

.126 checking if survival crafts are of equal capacity on both sides of the craft;

.127 checking if survival craft launching stations are in such positions as to ensure safe launching having particular regard to clearance from the propeller or water jet and steeply overhanging portions of the hull, as well as checking if these positions are adequately illuminated by the lighting supplied from the main and emergency sources of electrical power;

.128 checking if the area of water into which survival craft shall be launched is adequately illuminated by the lighting supplied from the main and emergency sources of electrical power;

.129 checking if every liferaft is stowed with its painter permanently attached to the craft and with a float free arrangement;

.130 carrying out the trial launch of at least one survival craft during abandon the ship drill;

.131 checking if alleyways, stairways and exits giving access to the muster and embarkation stations are adequately illuminated by lighting supplied from the main and emergency source of electrical power;

.132 where davit-launched survival craft are not fitted, checking if Maritime Evacuation System (MES) or equivalent means of evacuation are provided;

.133 checking if a safety knife is provided at each MES embarkation station;

.134 checking if a line-throwing appliance complying with the requirements of regulation 7.1 of the LSA Code is provided;

.135 checking if falls used in launching have been turned end for end at intervals of not more than 30 months and renewed when necessary due to deterioration of the falls or at intervals of not more than five years, whichever is the earlier;

.136 checking if spares and repair equipment are provided for life-saving appliances and their components which are subject to excessive wear or consumption and need to be replaced regularly;

.137 checking, by verification of the log-book entries, if life-saving appliances, including survival craft equipment are inspected monthly using the checklist required by regulation III/36.1 of the *SOLAS Convention*;

.138 checking if every inflatable liferaft, inflatable lifejacket and MES is serviced at an approved service station at intervals not exceeding 12 months (provided where in any case this is impracticable, the Administration may extend this period by one month);

.139 checking if in addition to, or in conjunction with, the servicing intervals of marine evacuation systems (MES) required above, each marine evacuation system is deployed from the craft on a rotational basis at intervals agreed by the Administration, each system being deployed at least once every six years;

.140 checking if launching appliances are serviced at recommended intervals in accordance with instructions for on-board maintenance as required by regulation III/36 of *SOLAS Convention;*

.141 checking if launching appliances are subjected to a thorough examination at the annual surveys required by paragraph 1.5.1.3 of the *HSC Code;*

.142 checking if launching appliances, upon completion of the examination in .140 above, are subjected to a dynamic test of the winch brake at maximum lowering speed;

.143 checking if the Administration which had approved new and novel inflatable liferaft arrangements allowed for extended servicing intervals and if the conditions, under which the extension was allowed, are satisfied, as follows:

a. the new and novel liferaft arrangement maintains the same standard, as required by testing procedures, throughout the extended servicing intervals;
b. the liferaft system is checked on board by certified personnel according to sub-chapter 8.7 of the *HSC Code*;

c. service at intervals not exceeding five years is performed in accordance with IMO recommendations.

.144 checking if every hydrostatic release unit is serviced at an approved service station at intervals not exceeding 12 months (provided where in any case this is impracticable, the Administration may extend this period by one month);

.145 checking if craft is provided with at least two survival crafts with sufficient capacity to accommodate not less than 100% of the total number of persons the craft is certified to carry;

.146 checking if, in addition, craft is provided with survival craft with sufficient aggregate capacity to accommodate not less than 10% of the total number of persons the craft is certified to carry;

.147 checking if craft is provided with at least one rescue boat for retrieving persons from the water, but not less than one such boat on each side is provided, when the craft is certified to carry more than 450 passengers;

.148 checking if craft is provided with at least one rescue boat to marshal every nine liferafts;

.149 checking if means are provided to sustain or restore the normal operation of propulsion machinery even though one of the essential auxiliaries becomes inoperative;

.150 checking if means are provided to bring the machinery into operation from the dead craft condition without external aid;

.151 checking if all parts of the machinery, hydraulics, pneumatics and other systems and their associated fittings which are under internal pressure are subjected to appropriate tests including a pressure test, before being put into service for the first time;

.152 checking if all boilers and pressure vessels and all associated piping systems are fitted with adequate means to prevent overpressure in service and are subjected to a hydraulic test before being put into service and, where appropriate, at subsequent specified intervals, to a pressure suitably in excess of the working pressure;

.153 checking if arrangements are provided to ensure that, in the event of failure in any liquid cooling system, it is rapidly detected and alarmed (visual and audible) and means are instituted to minimize the effect of such failures on machinery serviced by the system;

.154 checking, in case of category B craft and cargo craft, if additional machinery controls are provided in or close to the machinery space;

.155 checking if machinery installation is suitable for operation as in an unmanned machinery space, including automatic fire-detection system, bilge alarm system, remote machinery instrumentation and alarms;

.156 checking if the engines are fitted with adequate safety monitoring and control devices in respect of speed, temperature, pressure and other operational functions;

.157 checking if the engines are protected against overspeed, loss of lubricating oil pressure, loss of cooling medium, high temperature malfunction of moving parts and overload. Such safety devices shall be capable of being tested;

.158 checking if the craft is provided with at least two independent means of stopping the engines quickly from the operating compartment under any operating conditions;

.159 checking if provisions are made to drain all excess fuel and oil to a safe position;

.160 checking if turbine installation is arranged to ensure that the turbine cannot be continuously operated within any speed range where excessive vibration, stalling, or surging may be encountered;

.161 checking (in case of gas turbines) if information about the recommended concentration of contamination is made available;

.162 checking if each engine is provided with an emergency overspeed shutdown device connected, where possible, directly to each rotor shaft;

.163 checking if, where an acoustic enclosure is fitted which completely surrounds the gas generator and the high-pressure oil pipes, a fire-detection and an extinguishing system are provided;

.164 for the diesel propulsion system, checking if torsional vibration analysis has been done;

.165 checking if high-pressure fuel delivery lines are protected with a jacketed tubing system provided with an alarm to be given of a fuel line failure;

.166 checking if engines of a cylinder diameter of 200 mm or a crankcase volume of 0.6 m^3 and above are provided with a crankcase explosion relief valves of an approved type with sufficient relief area, fitted on a crankcase;

.167 checking if arrangements are provided to ensure the visual and audible alarm in the event of either lubricating oil level falling below safe level, considering the rate of circulation of oil in the engine;

.168 checking if for propulsion and lift devices appropriate arrangements are made to ensure that ingestion of debris or foreign matter, possibility of injury to personnel from shafting or rotating parts is minimized and, where necessary, inspection and removal of debris can be performed safely in service;

.169 checking if oil fuel, lubricating oil and other flammable oil lines are screened or otherwise suitably protected to avoid, as far as practicable, oil spray or oil leakages onto hot surfaces, into machinery air intakes or other sources of ignition;

.170 checking if safe and efficient means of ascertaining the amount of oil fuel contained are provided in any oil fuel tank;

.171 where daily service fuel tanks are filled automatically or by remote control, checking if means are provided to prevent overflow spillages;

.172 where daily service oil fuel tanks or settling tanks are fitted with heating arrangements, checking if a high temperature alarm is provided if the flashpoint of the oil can be reached due to failure of the thermostatic control;

.173 checking the operation of bilge pumping system together with remote control system and automatics, if applicable;

.174 checking the operation of bilge high level alarm system;

.175 checking the operation of ballast, cooling water, fuel and lubricating oil systems (if doubts as to technical condition of piping occur, BCS may require carrying out the hydraulic tests or thickness measurements);

.176 inspecting the overspill piping installation, venting installation and measurements piping;

.177 checking if failure of any remote or automatic control systems initiates an audible and visual alarm and does not prevent normal manual control;

.178 checking, where control of propulsion or maneuvering is provided at stations adjacent to but outside the operating compartment, if the transfer of control is effected only from the station which takes charge of control. Two-way voice communication shall be provided between all stations from which control functions may be exercised and between each such station and the look-out position;

.179 for Category B and cargo craft, checking if remote control systems for propulsion machinery and directional control are equipped with back-up systems controllable from the operating compartment. For cargo-craft, instead of a back-up system described above, a back-up system controllable from an engine control space such as an engine control room outside the operating compartment is acceptable;

.180 checking if the station or stations in the operating compartment from which control of craft maneuvering and/or of its main machinery is exercised is provided, within easy reach of the crew member at that station, with controls for use in an emergency to:

- activate fixed fire-extinguishing systems;
- close ventilation openings and stop ventilating machinery supplying spaces covered by fixed fire-extinguishing systems;
- shut off fuel supplies to machinery in main and auxiliary machinery spaces;
- disconnect all electrical power sources from the normal power distribution system (the operating control shall be guarded to reduce the risk of inadvertent or careless operation); and
- stop main engine(s) and auxiliary machinery;

.181 checking the operation of control systems specified in 17.1.3.174;

.182 in case the control of propulsion and maneuvering is provided at stations outside the operating compartment, checking if such station has direct communication with the operating compartment which shall be a continuously manned control station, as well as checking the operation of this communication;

.183 checking if alarm systems are provided which announce at the craft's control position, by visual and audible means, malfunctions or unsafe conditions listed in .184 and .185;

.184 checking if emergency alarm giving indication of conditions requiring immediate action is distinctive and in full view of crew members in the operating compartment, and if it is provided for the following:
- activation of a fire detection system;
- total loss of normal electrical supply;
- overspeed of main engines;
- thermal runaway of any permanently installed nickel-cadmium battery;

.185 checking if primary alarms with a visual display distinct from that of emergency alarms referred to in .178, indicate conditions requiring action to prevent degradation to an unsafe condition. These alarms shall be provided for at least conditions specified in 11.4.1.2 of the *HSC Code*;

.186 checking the operation of alarm systems;

.187 checking if all warnings required by .184 and .185 are provided at all stations at which control functions may be exercised;

.188 checking if equipment monitoring the passenger, cargo and machinery spaces for fire and flooding forms creates, so far as is practicable, an integrated sub-centre incorporating monitoring and activation control for all emergency situations;

.189 checking if manual recovery of propulsion is possible after automatic shut-down;

.190 checking if electrical installations, primary source of power and lighting system conform to approved documentation;

.191 checking if a self-contained emergency source of electrical power sufficient to supply all necessary equipment is provided;

.192 checking if a self-contained transitional emergency source of electrical power sufficient to supply all necessary equipment is provided;

.193 checking if starting arrangement for each emergency generating set is satisfactory;

.194 checking if cables are properly distributed, having due regard to separation of main and emergency source of power cables;

.195 checking, if required, if steering and stabilization device is served by at least two independent sources of power;

.196 checking, where applicable, emergency lighting arrangement, as well as checking this lighting;

.197 checking if precautions are taken against shock, fire hazard and other hazards of electrical origin;

.198 checking if minimal distance is kept between fixed electrical installation and main and steering compasses;

.199 checking the technical condition and operation of magnetic compass, as well as correct reading on repeaters fitted at emergency steering positions, if applicable;

.200 checking the technical condition and operation of heading indicating device of accuracy superior to magnetic compass, if applicable;

.201 checking the technical condition and operation of gyro-magnetic compass, as well as correct reading on repeaters, if fitted;

.202 checking the technical condition and operation of speed and distance measuring device, if fitted;

.203 checking the technical condition and operation of echo-sounding device, if fitted, and checking range and scale of measuring;

.204 checking the technical condition and operation of radar installation and automatic plotting device, if fitted. Running the self-test;

.205 checking the technical condition and operation of electronic position fixing system receiver;

.206 checking the technical condition and operation of rudder angle and rate-of-turn indicators;

.207 checking the technical condition and operation of night-vision equipment, if applicable;

.208 checking the technical condition and operation of automatic steering aid;

.209 checking the technical condition and operation of Electronic Chart Display and Information System (ECDIS) and its redundant system;

.210 checking the technical condition and operation of Automatic Identification System (AIS), if fitted;

.211 checking the technical condition and operation of Voyage Data Recorder (VDR) and all attached sensors, if fitted. The test shall be performed yearly by an approved service supplier in order to check accuracy, period of storing the data and means of access and retrieval of stored data. In addition all securing devices and homing beacon shall be tested;

.212 checking the arrangement, fitting and lighting of radio devices for conformity with the documentation;

.213 checking if means are provided to protect against electric shock and electromagnetic field;

.214 checking if installed set of equipment conforms to declared sea area and means of ensuring availability of GMDSS equipment;

.215 checking the possibility of transmitting distress communication from ship to shore, from the conning position, by at least two separate and independent means, each using different system or network;

.216 checking all antennas, cables and insulations:

.217 checking if reserve source of energy is capable of simultaneously operating primary and/or secondary means of alerting for a period of at least one hour and, where a reserve source of energy consists of a rechargeable accumulator battery or batteries, checking the arrangement of batteries and capability of being recharged within 10 hours;

.218 checking the technical condition and operation of VHF equipment;

.219 checking the technical condition and operation of VHF DSC equipment, DSC watch receiver working on Ch. 70, and checking correct coding of equipment with MMSI number;

.220 checking the technical condition and operation of MF/HF equipment;

.221 checking the technical condition and operation of HF direct-printing telegraphy and coding the equipment with MMSI number;

.222 checking the technical condition and operation of MF/HF DSC equipment, and coding the equipment with MMSI number;

.223 checking the technical condition and operation of MF/HF DSC watch receiver;

.224 checking the technical condition and operation of INMARSAT Ship Earth Station;

.225 checking the technical condition and operation of NAVTEX receiver;

.226 checking the technical condition and operation of EGC receiver;

.227 checking the technical condition and operation of Maritime Safety Information NBDP receiver, if fitted;

.228 checking the satellite EPIRB 406 MHz *(SOLAS 74/88 reg. IV/7 and 14)*, including:

- checking place and means of securing the beacon;
- checking for potential mechanical damages to casing;
- running the self-test program;
- checking if ID number is marked on the casing and, if possible, decoding the signal to check if it corresponds to this ID;
- checking the battery validity;

.229 checking the condition and date of validity of hydrostatic release unit, if fitted;

.230 checking the technical condition and operation of portable two-way VHF radiotelephones and validity of their batteries;

.231 checking the technical condition and operation of radar transponder and checking validity of batteries;

.232 checking the technical condition and operation of search and rescue locating device (AIS SART) and checking validity of batteries, if fitted;

.233 checking the set of measuring equipment and spare parts according to declared area of sailing and means of ensuring availability of GMDSS equipment;

.234 checking the operation of means of communication between operating compartment and spaces containing essential machinery, including any emergency steering position;

.235 checking the operation and audibility of public address system and safety announcements to all areas where crew and passengers have access;

.236 in case of a prototype, demonstration and verification of operation of stabilization system (according to approved program of trial) in order to determine the limits of safe use of that system and any adverse effect upon safe operation of the craft in the event of an uncontrollable total deflection of any one control device;

.237 for a prototype craft, carrying out the full-scale trials of the prototype demonstrating operational safety of the craft in normal service conditions and in equipment failure situations. The objective of tests is to determine information to be included in the craft operating manual in relation to:
- handling and performance limitations;
- actions to be taken in the event of prescribed failure; and
- limitations to be observed for safe operation subsequent to prescribed failures.

17.1.4 Completion of the initial survey shall consist of:

.1 after satisfactory survey, issuing the High-Speed Craft Safety Certificate, with attached Record of Equipment and Permit to Operate High-Speed Craft.

17.2 Periodical Surveys

17.2.1 Examination of current certificates and other records shall consist of:

.1 Checking, if applicable, the High-Speed Craft Safety Certificate, with attached Record of Equipment;

.2 checking the *Permit to Operate High-Speed Craft*;

.3 checking the *Safety Management Certificate* and *Document of Compliance*;

.4 checking, if applicable, the *International Tonnage Certificate*;

.5 checking, if applicable, the *International Load Line Certificate* or *International Load Line Exemption Certificate*;

.6 checking, if applicable, the validity of *International Oil Pollution Prevention Certificate*;

.7 checking the *Certificate of Class* if the craft is classified by classification society;

.8 checking the *Certificate of Safe Manning*;

.9 checking if captain and all other management level officers have diplomas and licenses required for the type of craft;

.10 checking if new equipment is installed on the craft and if so, checking if this equipment has been approved before installation and confirmed by appropriate certificates;

.11 checking if *Craft Operating Manual* is on board;

.12 checking if *Route Operational Manual* is on board;

.13 checking if *Training Manual* is on board;

.14 checking if *Maintenance and Servicing Manual* is on board;

.15 checking if stability booklet is on board;

.16 confirming that loading procedures and limitations, including maximum operational weight, centre of gravity position, distribution of load and, where practicable lashing procedures, are on board;

.17 checking if the plan of maintaining sufficient amount of fuel is on board;

.18 checking if the C*ontingency Plan* is on board*;*

.19 checking, if applicable, that the *Oil Pollution Prevention Plan* is on board;

.20 checking, if applicable, that the *Oil Record Book* is on board;

.21 checking, if applicable, that the *Garbage Record Book* is on board;

.22 checking, if applicable, that the *Garbage Management Plan* is on board;

.23 checking, if applicable, that the *Manifest*, or detailed cargo plan for stowage of dangerous goods is on board;

.24 checking contingency plans, including actions to be taken ashore for every possible scenario and giving data about Search and Rescue (SAR) services and local Administration and other organizations supplying equipment for actions taken by crew;

.25 checking if the fire protection plan is posted or the brochure containing such plan is available and if the duplicate of that plan or brochure is kept in a clearly marked container protecting it from atmospheric influences, placed outside the superstructure, near the entrances;

.26 checking if for every passenger and crew member the emergency procedures instruction is provided and posted next to the seat, containing general plan and arrangement of emergency exits, fire fighting equipment and life saving appliances, as well as instruction for donning the lifejacket;

.27 checking if the curve or table of magnetic compass residual deviations is provided onboard and shadow sectors diagrams are posted by the radar;
.28 checking if radio and navigational devices manuals are on board;
.29 checking if on board life saving appliances maintenance manual is provided on board;
.30 checking if adequate and up-to-date charts and publications necessary for the intended voyage are on board;
.31 checking if the copy of Certificate of Compliance for voyage data recording system (VDR), issued yearly by service supplier, having manufacturer's authorization, dated according to compliance tests and with description of tests conditions is on board;
.32 checking that a copy of the *Automatic Identification System (AIS) Test Report*, issued after an annual survey by radio service company approved by BCS, is retained on board the ship;
.33 checking if the *International Code of Signals* is kept, near radio equipment station;
.34 checking the date of validity of Radio Licence issued by the Flag State;
.35 checking if shore-based maintenance of EPIRB has been done by service supplier approved by manufacturer at intervals not exceeding 5 years;
.36 checking the radio operators certificates of persons operating the radio equipment;
.37 checking the entries in the *GMDSS Log Book*;
.38 checking if up-to-date ITU publications are on board;
.39 checking if service manuals for all radio devices are on board – if at sea maintenance is declared as a means of ensuring operational readiness;
.40 checking if records are kept in relation to:
- prescribed parameters of craft operation;
- trainings/procedures in respect of safety and emergency;
- hours of work for crew handling the craft;
- number of passengers on board;
- fulfilling all legal rules by which craft is covered;
- maintaining the craft and its engineering equipment to approved maintenance plans;
- damages and repairs.

17.2.2 Periodical survey of hull, machinery and equipment shall consist of:
.1 complete inspection of the structure, including the outside of the craft's bottom and related items, to ensure that they are in satisfactory condition and fit for the service for which the craft is intended. Bottom survey shall be performed on dock to enable examination of areas damaged or suspected to be damaged;
.2 checking, if required by Administration, if corrected and approved stability booklet being result of additional inclining deadweight tests, is onboard;
.3 checking the effectiveness of equipment for draining the enclosed spaces, if fitted;
.4 checking if the scales of draughts are accurately determined, located and marked at the bow and stern in a permanent manner;
.5 checking that the design waterline is clearly marked amidships on the craft‘s outer sides with the letter H;
.6 checking the operation of general alarm system;
.7 checking if illuminated or luminous notices or video information system are provided for all sitting passengers to notify them of safety measures;
.8 checking if a seat is provided for each passenger and crew member for which the craft is certified to carry;
.9 checking if seats fitted in addition to those required by 17.2.2.8, which are not permitted to be used in hazardous navigational situations or potentially dangerous weather or sea conditions and do not comply with the requirements for seats designated for passengers and crew are properly secured and clearly identified as not being able to be used in hazardous situations;
.10 checking if public spaces, evacuation routes, exits and embarkation stations are clearly and permanently marked and illuminated;
.11 checking if all exits, together with their means of opening are adequately marked for the guidance of passengers and rescue personnel outside the craft;

.12 checking the illumination of evacuation paths powered from main and emergency source of power;

.13 checking if power drives for directional control devices, including those required to direct thrust forward or astern, become operative automatically within 5 seconds of power or other failure, if this is necessary to bring the craft to a safe condition;

.14 checking, in case of directional control systems operable also from other positions, if two-way communication is arranged between the operating station and these other positions;

.15 checking if adequate arrangements are provided for two-way voice communication between the operating compartment and persons engaged in dropping, weighing or releasing the anchor;

.16 checking the operation of anchoring equipment;

.17 checking if suitable berthing arrangements are provided;

.18 checking the condition of fire resisting divisions;

.19 checking the operation of cut-off valves operated manually or remotely;

.20 carrying out the test of closing doors and other openings in fire resisting and fire retarding divisions;

.21 checking the operation of fire detection system and manual call points;

.22 carrying out the test of manual and automatic shutting off ventilators of protected areas;

.23 checking if each fire extinguisher has been through periodical inspection;

.24 checking the operation of all fire pumps;

.25 examination and tests of fire extinguishing installations;

.26 checking if each special-category space is provided with at least three water fog applicators and one portable foam applicator unit consisting of an air-foam nozzle and an inductor capable of being connected to the fire main by the fire hose;

.27 checking if at least two foam applicator units are available in the craft for use in special-category spaces and at least three portable fire extinguishers located so that no point in the space is more than approximately 15 m walking distance from an extinguisher, provided that at least one portable extinguisher is located at each access to such space;

.28 checking the effectiveness of rapid shutdown and closure of ventilation system;

.29 checking the operation of remote and local closing/opening of the fire doors;

.30 checking the quantity of fireman's outfit and personal equipment;

.31 checking if the engine room is not contaminated with flammable substances;

.32 checking if life saving appliances are marked with date of production or validity;

.33 in case of passenger high-speed craft and cargo high-speed craft of 500 tons and upwards, checking if craft is provided with:

- at least three two-way VHF radiotelephone apparatuses;
- at least one radar transponder;
- at least one search and rescue locating device – if fitted;

.34 checking the condition and operation of emergency means of communication comprising either fixed or portable equipment or both for two-way communication between emergency control stations, muster and embarkation stations and strategic positions on board;

.35 checking the condition and operation of public alarm system;

.36 checking if craft is provided with a portable daylight signaling lamp;

.37 checking the number of rocket parachute flares;

.38 checking the number and arrangement of lifebuoys;

.39 checking if lifebuoys fitted adjacent to each normal exit from the craft are fitted with buoyant lines of at least 30 m in length;

.40 checking if at least half the total number of lifebuoys is fitted with self-igniting lights;

.41 checking the number of lifejackets;

.42 checking if all lifejackets are fitted with a light, which complies with the requirements of regulation 2.2.3 of LSA Code;

.43 checking if lifejackets are so placed as to be readily accessible and their positions are clearly indicated;

.44 checking the number of immersion suits;

.45 checking if muster lists are exhibited in conspicuous places throughout the craft;

.46 checking if illustrations and instructions in appropriate languages are posted in public spaces and are conspicuously displayed at muster stations, at other passenger spaces and near each seat to

inform passengers of their muster station, the essential actions they must take in an emergency and the method of donning lifejackets;

.47 checking if posters or signs are provided on or in the vicinity of survival craft and their launching controls illustrating the purpose of controls and the procedures for operating the appliances;

.48 checking if falls used in launching have been turned end for end at intervals of not more than 30 months and renewed when necessary due to deterioration of the falls or at intervals of not more than five years, whichever is the earlier;

.49 checking if spares and repair equipment are provided for life-saving appliances and their components which are subject to excessive wear or consumption and need to be replaced regularly;

.50 checking, by verification of the log-book entries, if life-saving appliances, including survival craft equipment are inspected monthly using the checklist required by regulation III/36.1 of the SOLAS Convention;

.51 checking if every inflatable liferaft, inflatable lifejacket and MES is serviced at an approved service station at intervals not exceeding 12 months (provided where in any case this is impracticable, the Administration may extend this period by one month);

.52 checking if in addition to, or in conjunction with, the servicing intervals of marine evacuation systems (MES) required above, each marine evacuation system is deployed from the craft on a rotational basis at intervals agreed by the Administration, each system being deployed at least once every six years;

.53 checking if launching appliances are serviced at recommended intervals in accordance with instructions for on-board maintenance as required by regulation III/36 of *SOLAS Convention;*

.54 checking if launching appliances are subjected to a thorough examination at the annual surveys required by paragraph 1.5.1.3 of the *HSC Code*;

.55 checking if launching appliances, upon completion of the examination in .54 above, are subjected to a dynamic test of the winch brake at maximum lowering speed;

.56 checking if the Administration which had approved new and novel inflatable liferaft arrangements allowed for extended servicing intervals and if the conditions, under which the extension was allowed, are satisfied, as follows:

a. the new and novel liferaft arrangement maintains the same standard, as required by testing procedures, throughout the extended servicing intervals;
b. the liferaft system is checked on board by certified personnel according to sub-chapter 8.7 of the *HSC Code*;
c. service at intervals not exceeding five years is performed in accordance with IMO recommendations.

.57 checking if every hydrostatic release unit is serviced at an approved service station at intervals not exceeding 12 months (provided where in any case this is impracticable, the Administration may extend this period by one month);

.58 checking if a line-throwing appliance is provided on board a high speed craft;

.59 checking the number and capacity of survival crafts;

.60 checking the number of rescue boats;

.61 carrying out the test of bringing the machinery into operation from the dead craft condition without external aid;

.62 testing the visual and audible alarms in the event of failure of liquid cooling system;

.63 testing the engines protection against overspeed, loss of lubricating oil pressure, loss of cooling medium, high temperature, malfunction of moving parts and overload;

.64 testing the quick stop of the engines initiated from the operating compartment;

.65 inspecting the jacketed tubing system protection on the high-pressure fuel delivery lines;

.66 testing the safety arrangements of engines;

.67 checking the technical condition of control and measuring devices;

.68 checking the operation of bilge pumping system together with remote control system and automatics, if applicable;

.69 checking the operation of high level bilge alarm system;

.70 checking the operation of ballast, cooling water, fuel and lubricating oil systems (if doubts as to technical condition of piping occur, BCS may require carrying out the hydraulic tests or thickness measurements);
.71 inspecting the overspill piping installation, venting installation and measurements piping;
.72 checking the operation of remote and automatic control systems;
.73 checking the operation of redundant remote control systems, if applicable;
.74 checking the operation of alarm systems;
.75 checking the possibility of manual cancelling the automatic shut-down;
.76 checking if electrical installations, primary source of power and lighting system are maintained in good condition;
.77 checking the emergency start of emergency generating set;
.78 checking the operation of the emergency lighting;
.79 checking if means of protection against shock, fire hazard and other hazards of electrical origin are maintained in good technical condition;
.80 checking the technical condition and operation of magnetic compass, as well as correct reading on repeaters fitted at emergency steering positions, if applicable;
.81 checking the technical condition and operation of heading indicating device of accuracy superior to magnetic compass, if applicable;
.82 checking the technical condition and operation of gyro-magnetic compass, as well as correct reading on repeaters, if fitted;
.83 checking the technical condition and operation of speed and distance measuring device, if fitted;
.84 checking the technical condition and operation of echo-sounding device, if fitted, and checking range and scale of measuring;
.85 checking the technical condition and operation of radar installation and automatic plotting device, if fitted. Running the self-test;
.86 checking the technical condition and operation of electronic position fixing system receiver;
.87 checking the technical condition and operation of rudder angle and rate-of-turn indicators;
.88 checking the technical condition and operation of night-vision equipment, if applicable;
.89 checking the technical condition and operation of automatic steering aid;
.90 checking the technical condition and operation of Electronic Chart Display and Information System (ECDIS) and its redundant system, if applicable;
.91 checking the technical condition and operation of Automatic Identification System (AIS), if fitted;
.92 checking the technical condition and operation of Voyage Data Recorder (VDR) and all attached sensors, if fitted. The test shall be performed yearly by an approved service supplier in order to check accuracy, period of storing the data and means of access and retrieval of stored data. In addition all securing devices and homing beacon shall be tested;
.93 checking the arrangement, fitting and lighting of radio devices for conformity with the documentation;
.94 checking if means provided to protect against electric shock and HF devices groundings are in good technical condition;
.95 checking if installed set of equipment conforms to declared sea area and means of ensuring availability of GMDSS equipment;
.96 checking all antennas and their cables insulations;
.97 checking the battery charge;
.98 checking the technical condition and operation of VHF equipment;
.99 checking the technical condition and operation of VHF DSC equipment, DSC watch receiver working on Ch. 70, and checking correct coding of equipment with MMSI number;
.100 checking the technical condition and operation of MF/HF equipment;
.101 checking the technical condition and operation of HF direct-printing telegraphy and coding the equipment with MMSI number;
.102 checking the technical condition and operation of MF/HF DSC equipment, and coding the equipment with MMSI number;
.103 checking the technical condition and operation of MF/HF DSC watch receiver;
.104 checking the technical condition and operation of INMARSAT Ship Earth Station;

.105 checking the technical condition and operation of NAVTEX receiver;
.106 checking the technical condition and operation of EGC receiver;
.107 checking the technical condition and operation of Maritime Safety Information NBDP receiver, if fitted;
.108 checking if EPIRB has been through the shore-based maintenance by the service supplier approved by manufacturer at intervals not exceeding 5 years;
.109 checking the satellite EPIRB 406 MHz (SOLAS 74/88 regs. IV/7 and 14), including:
- checking place and means of securing the beacon;
- checking for potential mechanical damages to casing;
- running the self-test program;
- checking if ID number is marked on the casing and, if possible, decoding the signal to check if it corresponds to this ID;
- checking the battery validity**;**

.110 checking the condition and date of validity of hydrostatic release unit, if fitted;
.111 checking the technical condition and operation of portable two-way VHF radiotelephones and validity of their batteries;
.112 checking the technical condition and operation of radar transponder and checking validity of batteries;
.113 checking the technical condition and operation of search and rescue locating device (AIS SART) and checking validity of batteries, if fitted;
.114 checking the set of measuring equipment and spare parts according to declared area of sailing and means of ensuring availability of GMDSS equipment;
.115 checking the operation of means of communication between operating compartment and spaces containing essential machinery, including any emergency steering position;
.116 checking the operation and audibility of public address and safety announcements to all areas where crew and passengers have access.

17.2.3 Completion of the periodical survey shall consist of:
.1 after satisfactory survey, issuing the High-Speed Craft Safety Certificate, with attached Record of Equipment and Permit to Operate High-Speed Craft;
.2 in case of unsatisfactory result of survey, refer to 1.4.8 of *Part I – Survey Regulations.*

17.3 Renewal Surveys

17.3.1 Examination of current certificates and other records shall consist of:
.1 scope specified in 17.2.1.

17.3.2 Renewal survey of high-speed craft hull, machinery and equipment shall consist of:
.1 checking that at intervals not exceeding 5 years, a lightweight survey is performed on passenger craft to verify changes in lightweight displacement and longitudinal centre of gravity. The passenger craft shall be re-inclined whenever, in comparison with the approved stability booklet, a deviation from the lightweight displacement exceeding 2% or a deviation of the longitudinal centre of gravity exceeding 1% of L is found or anticipated;
.2 checking if a report of each inclining or lightweight survey and of the calculation there from of the lightweight condition particulars have been submitted to the Administration for approval. The approved report shall be placed on board the craft by the Owner in the custody of the Master and incorporate such additions and amendments as the Administration may require in any particular case;
.3 checking if the amended lightweight condition particulars so obtained have been used from time to time by the Master in substitution for such previously approved particulars when calculating the craft's stability;
.4 scope specified in 17.2.2 and 17.1.3, excluding 17.1.3.6 and 17.1.3.8.

17.3.3 Completion of the renewal survey shall consist of:
.1 after satisfactory survey, issuing the High-Speed Craft Safety Certificate, with attached Record of Equipment and Permit to Operate High-Speed Craft.

18 SURVEYS FOR THE MOBILE OFFSHORE DRILLING UNIT SAFETY CERTIFICATE
(*under MODU Code, 2009, obligatory for ships built on or after 1 January 2012)*

18.1 General

18.1.1 Surveys for *Mobile Offshore Drilling Unit Safety Certificate* for units constructed on or after 1 January 2012, shall be performed in the scope determined in *MODU Code*.

18.2 Initial Surveys

18.2.1 Completion of the initial survey shall consist of:

.1 after satisfactory survey, issuing the Mobile Offshore Drilling Unit Safety Certificate.

18.3 Annual Surveys

18.3.1 Completion of the annual survey shall consist of:

.1 after satisfactory survey, issuing the Mobile Offshore Drilling Unit Safety Certificate;

.2 in case of unsatisfactory result of survey, refer to 1.4.8 of *Part I – Survey Regulations.*

18.4 Renewal Surveys

18.4.1 Completion of the renewal survey shall consist of:

.1 after satisfactory survey, issuing the Mobile Offshore Drilling Unit Safety Certificate.

19 SURVEYS FOR THE MOBILE OFFSHORE DRILLING UNIT SAFETY CERTIFICATE
(*under MODU Code, 2001 – obligatory for ships built before 1 January 2012)*

19.1 Initial Surveys

19.1.1 Survey of technical documentation of hull, machinery and equipment of mobile offshore drilling unit shall consist of:

.1 an appraisal of the assumptions made and limitations proposed in relation to service parameters of the platform, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2;

.2 survey of technical documentation including the following drawings, data and calculations:

- longitudinal sections showing scantlings;
- transverse sections showing scantlings;
- arrangements of mass fixed and variable weights;
- loadings for all decks;
- flats (including helicopter deck, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 13);
- framing;
- shell plating;
- watertight bulkheads and flats;
- structural bulkheads and flats;
- tank bulkheads with level of top of overflows and air pipelines;
- pillars and girders;
- diagonals and struts;
- legs, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2;
- construction of legs in way of lifting device, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2;
- construction of hull in way of lifting device, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2;
- stabilized and intermediate columns, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2;

- hulls, pontoons, footings, spud cans, pads or mats, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2;
- superstructures and deck houses;
- arrangement and details of watertight doors and hatches including height of coamings and closures;
- welding details and procedures, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2;
- methods and locations for non-destructive testing;
- structural analysis, including fatigue analysis;
- resultant forces and moments from wind, waves, current, mooring and other environment loadings;
- effects of icing on structural loadings, stability and windage area;
- operational loads from drilling and concurrent arrangements and similar type significant loadings;
- calculations substantiating adequacy of structure to transmit forces between legs and hull through the jacking or other self-elevating system;
- evaluation of the unit's ability to resist overturning while bearing on the sea bed;

.3 limiting design data calculations for each mode of operation, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2;

.4 an appraisal of the data supporting the safety of the design, obtained, as appropriate, from calculations, tests and trials;

.5 a failure mode and effect analysis;

.6 an investigation into the adequacy of the contingency plans and various manuals to be supplied to the unit;

.7 checking the buoyancy and stability characteristics;

.8 checking the ballast system documentation, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.9;

.9 checking the watertight bulkheads arrangement, bulkheads construction and openings in bulkheads, as well as watertight doors controls, including hydraulic piping and electric cables, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.6;

.10 checking the arrangement of openings in the shell plating below the margin line, watertight door construction, sidecuttles, watertight decks, trunks, etc. as well as watertightness integrity above the margin line;

.11 an appraisal of the bilge piping diagram;

.12 an appraisal of the engine room devices, mechanisms and installations plans;

.13 checking the electrical installation diagrams;

.14 checking, if applicable, the emergency lighting arrangements;

.15 checking the fire pumps arrangement, fire mains, hydrants, hoses and nozzles, as well as the international shore connection, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9;

.16 checking the list and distribution of the portable fire extinguishers and fireman's outfit, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9;

.17 checking the fixed fire fighting installation arrangement and special arrangements in machinery spaces, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9;

.18 checking the fuel, lubricating oil and other flammable oil pipelines;

.19 checking the structural fire protection arrangements and escape routes, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9;

.20 checking the fixed fire detection and fire alarm system arrangement, public address system or other effective communication system, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9;

.21 checking the adequacy of distribution of survival crafts, muster stations and means of access into the survival crafts;

.22 checking the technical documentation of survival crafts, their equipment, embarkation arrangements and launching and recovery arrangements;

.23 checking the adequacy of the distribution of distress flares and line throwing apparatus, ship's radio life-saving appliances and general alarm system;

.24 checking the adequacy of distribution of life buoys, lifebuoys with attached self-igniting lights, with self-activating smoke signals, with buoyant lifeline, as well as lifejackets, immersion suits and anti-exposure suits;

.25 checking the lighting plans for assembly stations, embarkation stations, corridors, stairways and emergency exits providing access to assembly and embarkation stations, as well as emergency source of power;

.26 checking the navigational lights arrangement and means of visual and acoustic signaling, according to *COLREG 72* with amendments;

.27 checking the documentation of daylight signalling lamp, according to SOLAS *74/02, V/19;*

.28 checking documentation and arrangements for magnetic compass, THD, gyro compass, radar, echo sounder, speed and distance measuring device, rudder angle indicator, rate-of-turn indicator, electronic position fixing receiver and night vision devices, according to *SOLAS 74/02, V/19*;

.29 determining the declared sea areas, operational readiness maintenance of radio equipment and source of emergency power, according to *SOLAS 74/02, IV/15*;

.30 determining the radio equipment to be surveyed;

.31 checking the installation documentation for radio equipment, sources of power and antenna arrangement;

.32 checking the installation and arrangement documentation for radio equipment for life saving appliances.

19.1.2 Survey of documentation to be carried on mobile offshore drilling unit shall consist of:

.1 checking if master and all crew members have all necessary diplomas and required certificates, according to *STCW Convention*;

.2 checking if *Training Manual* is on board;

.3 checking if *Maintenance and Servicing Manual* is on board;

.4 checking if stability booklet is on board;

.5 checking if the *Contingency Plan* is on board;

.6 checking if the *Oil Pollution Prevention Plan* is on board;

.7 checking that the *Oil Record Book* is on board;

.8 checking, if applicable, that the *Garbage Record Book* and *Garbage Management Plan* are on board;

.9 checking if contingency plans, including actions to be taken ashore for every possible scenario and giving data about Search and Rescue (SAR) services and local Administration and other organizations supplying equipment for actions taken by crew, are on board;

.10 checking if the fire protection plans are posted or the brochure containing such plan is available and if the duplicate of that plan or brochure is kept in a clearly marked container protecting it from atmospheric influences, placed outside the superstructure, near the entrances;

.11 checking if for every passenger and crew member the emergency procedures and instructions are provided and posted next to the seat, containing general plan and arrangement of emergency exits, fire fighting equipment and life saving appliances, as well as illustrated instruction for donning the lifejackets;

.12 checking if the curve or table of magnetic compass residual deviations and shadow sectors diagrams are posted by the radars, according to *SOLAS 74/02, V/19*;

.13 checking documentation of the electronic position fixing receiver, Electronic Chart Display and Information System (ECDIS) with its backup system, Automatic Identification System (AIS), Voyage Data Recorder (VDR), if applicable, according to *SOLAS 74/02, Chapter V*;

.14 checking that a copy of the *Automatic Identification System (AIS) Test Report,* issued after an annual survey by radio service company approved by BCS, is retained on board the ship;

.15 checking that a copy of the *Certificate of Compliance* and a copy of the *Voyage Data Recorder (VDR) Test Report,* issued after an annual survey by the company authorized by the manufacturer, are retained on board the ship;

.16 checking if all radio and navigational devices manuals are on board;
.17 checking if on board life saving appliances maintenance manual is on board;
.18 checking if the *International Code of Signals* is on board, near radio equipment station;
.19 checking the date of validity of *Radio Licence* issued by the Flag State;
.20 checking the radio operators certificates of persons operating the GMDSS radio equipment;
.21 checking if *GMDSS Log book* is on board;
.22 checking if up-to-date ITU publications are on board;
.23 checking if service manuals for all radio devices are on board – if at sea maintenance is declared as a means of ensuring operational readiness.

19.1.3 Survey of manual documentation of the drilling units in all operational and damage conditions shall consist of:

.1 general description of the unit, including lightship characteristics, calculated on the basis of inclination tests and hydrostatic curves or their equivalents, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3;
.2 all approved data conditions, including calculated loadings due to wave and current velocity, wind velocity, minimum air and sea temperatures, prediction of sea bed state, draught and other environmental conditions, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2;
.3 general description of the unit, including permissible flat weights and location of watertight compartments, closures, venting and ventilation. If units have permanent ballast, quantities, location and type shall be indicated, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3;
.4 drilling unit stability information in the form of maximum KG-draught curve or other similar parameters based upon compliance with the required intact and damage stability criteria, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3;
.5 buoyancy characteristics;
.6 description of unit modes of operation with precautions in case of bad weather conditions, changes in unit conditions and any other limitation conditions, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2.2;
.7 schematic diagrams of the ballast system including ballasting operation;
.8 tank sounding tables;
.9 hazardous areas plan;
.10 procedures, if applicable:
- drilling equipment modes of operation;
- fuel storage and transferring;
- anchoring and mooring;
- crew transferring;
- ships and helicopters accommodating;
- dynamic positioning;
- proceeding with contaminations and radio actives;
- for drilling equipment control system;
- safety towing;

.11 fire protection plan approved by the Flag State, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9;
.12 typical approved modes of operation examples of loadings with data to appraise others modes of operation calculations;
.13 electrical installations emergency stop, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5;
.14 schematic diagrams of oil fuel installations with tanks;
.15 emergency procedures instruction, containing general plan and arrangement of life-saving appliances, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10;
.16 nominal drilling conditions;

.17 main source and emergency source of electrical power diagrams, emergency procedures and instructions, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5;
.18 helicopter particulars for which the helideck is designed;
.19 detailed drawing of used materials containing their locations and strength;
.20 welding process description and all others essentially shipbuilding information;
.21 limitation and prohibition of making repairs and alterations.

19.1.4 Survey of hull, machinery and equipment after installation on mobile offshore drilling unit shall consist of:

.1 complete survey of its structure, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2;
.2 surface-type units (ship or barge type units) underwater survey: external surfaces of the hull bow, keel, stem and stern frames, rudder, sea chest and drain plugs;
.3 self-elevating units survey: over water areas of legs in working position, external surfaces of the upper hull or platform, with special regard to leg connections to hull and inspecting and checking the operation of gear pinions and leg racks according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2;
.4 column-stabilized units survey: over water areas of columns, with special regard to structural integrity of girders, and columns connections to upper structure;
.5 survey of footings and over-water hulls, including helideck, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapters 2, 13;
.6 survey of drilling derrick and its supporting structure, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 12/12.3;
.7 survey of coamings, guard railings, hawse-holes, ballards, ventilating and exhaust fans of the over-water structure decks, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2;
.8 survey of internal surfaces of the columns and underwater areas of columns, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 2/2.6;
.9 checking fitting arrangements to shell plating and closing of openings in decks;
.10 checking the ballast system, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.9;
.11 checking the watertight bulkheads arrangement, bulkheads construction and openings in bulkheads, determining if the watertight subdivisions ensure watertight integrity, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.6;
.12 checking tightness of watertight bulkheads and pressure testing all watertight doors, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3;
.13 checking tightness of watertight bulkheads, where bulkheads are penetrated for the passage of piping installation, venting installation, electrical cables, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.6;
.14 checking if in watertight compartments, situated below the margin line there are means to check their tightness, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.6;
.15 checking if closing of openings of the weather-tight constructions ensure weathertightness in all operational conditions;
.16 checking the effectiveness of draining the enclosed spaces, if applicable;
.17 checking if valves are capable of being operated from a pump-room or other normally operated space, a weather deck or a deck which is above the final waterline after flooding (in the case of column unit – from the centre ballast control station) and if they are provided with valve position indicators, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.6;
.18 checking closing of ventilation system valves and arranging alternative methods of ventilation in self-elevating units when the unit is afloat, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.6;

.19 checking that means to ensure the watertight integrity meet the requirements of *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3.6;

.20 checking that means to ensure the watertight integrity of internal openings which are permanently closed while the unit is afloat, meet the requirements of *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3.6.5;

.21 testing if watertight doors can be closed remotely from central operating console during alarm and manually from local control, in order to confirm that:
- doors may be opened and closed locally from each side of bulkhead,
- doors are provided with open/shut indicators in all other control stations,
- doors are provided with sound alarm system different from other alarms in this area, and if applicable, intermittent light alarm,
- control levers on each side of the bulkhead allow all persons passing the door to keep both levers in open position, without the possibility of accidental disconnecting the closing mechanism;

.22 checking operation of watertight doors and their open/shut indicators in case of failure to main and emergency power supply, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.6;

.23 checking if the freeboard is properly marked, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.7;

.24 checking watertightness of decks, shafts, tunnels and ventilating ducts through stream of water or flooding;

.25 checking watertightness integrity above the margin line;

.26 checking bilge pumping, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.8;

.27 carrying out the inclining test, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.1;

.28 checking if all parts of the boilers, steam, hydraulic and pneumatic installations and their associated fittings which are under internal pressure have been subjected to appropriate tests including a pressure test;

.29 checking if, where practicable, adequate means to prevent over-pressures in service were applied, meet the requirements of *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4;

.30 checking if, where required, internal combustion engine crankcases are provided with explosion relief valves installed so as to minimize possibility of engine room crew injuries;

.31 checking if main turbine or internal combustion engine of main propulsion and auxiliary machinery are provided with automatic shutdown arrangements, in the case of e.g. lubricating oil supply failure, which could lead rapidly to complete breakdown, serious damage or explosion;

.32 checking and documenting if the motor is able to be reversed or braked by the primary supply while the motor is running, to stop the vessel in possible short distance, including efficiency of all additional means for unit maneuvering;

.33 checking if failure of any main or emergency steering device does not prevent normal control of the second one;

.34 checking means of installing and securing machinery, boilers and other pressure vessels subject to internal pressure together with associated fittings and pipes, so as to minimize possibility of crew injuries in the unit, with special attention given to movable parts, hot surfaces and other hazards;

.35 checking if dangerous substances are stored safely and according to their nature and if they are separated one from another, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.1;

.36 checking if explosives which present a serious risk of explosion are stored in a suitable space and kept securely closed; checking if explosives are separated from detonators, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.2;

.37 checking if flammable liquids which give off dangerous vapours and flammable gases are stored in a well-ventilated space or on deck, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.3;

.38 checking if substances which are liable to spontaneous heating or combustion are carried with precautions taken to prevent the outbreak of fire, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.4;

.39 checking if radioactive substances are stored in a safe manner, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.5;

.40 checking by external examination if air compressors, air cylinders and drilling fluid tanks and safety valves work properly;

.41 checking if pipelines together with their associated fittings: bilge, ballast, oil fuel, compressed air, steam work properly with special regard to remote controlled valves;

.42 checking if drain pipes and their fittings operate properly and checking the entries in logbook;

.43 checking if means are provided whereby normal operation of vital systems can be sustained or restored even though one of the essential auxiliaries becomes inoperable, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2.8;

.44 checking if machinery can be brought into operation from the dead ship condition without external aid, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2.9;

.45 checking if all parts of machinery, all steam, hydraulic, pneumatic and other systems and their associated fittings have been subjected to appropriate tests including a pressure test before being put into service for the first time, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2.2;

.46 checking if all boilers, pressure vessels and their associated pipelines are provided with means protecting against overpressure in service, and also they have been subjected to pressure test before being put into service for the first time and, where it is applicable, they were subjected at defined intervals to pressure test, to the pressure exceeding working pressure, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2;

.47 checking if every steam boiler and every unfired steam generator are provided with not less than two safety valves, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.3.1;

.48 checking if every oil-fired boiler, pressure vessel and their associated pipelines are provided with safety arrangements which shut off the fuel supply and give an alarm in the case of low water level, air supply failure or flame decay, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.3.2;

.49 checking if arrangements are provided to ensure that, in the event of failure in any liquid cooling system, it is rapidly detected and alarmed (visual and audible) and means are instituted to minimize the effect of such failures on machinery serviced by the system;

.50 checking if machinery installation is suitable for operation as in an unmanned machinery space, including automatic fire-detection system, bilge alarm system, remote machinery instrumentation and alarms;

.51 checking if engines are provided with measuring and monitoring means for rated speed, temperature, pressure and other working parameters, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2;

.52 checking if the engines are protected against overspeed, loss of lubricating oil pressure, loss of cooling medium, high temperatures, malfunction of moving parts and overload. Such safety devices shall be capable of being tested, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2.3;

.53 checking if provisions are made to drain all excess fuel and oil to a safe position so as to avoid a fire hazard;

.54 checking if machinery installations are arranged to ensure that they cannot be continuously operated within any speed range where excessive vibration, stalling, or surging may be encountered, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2.3;

.55 for the diesel propulsion system, checking if torsional vibration analysis has been done;

.56 checking if high-pressure fuel delivery lines are protected with a jacketed tubing system and provided with an alarm to be given of a fuel line failure;

.57 checking if engines of a cylinder diameter of 200 mm or a crankcase volume of 0.6 m^3 and above are provided with a crankcase explosion relief valves of an approved type with sufficient relief area, fitted on a crankcase, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2.6;

.58 checking if arrangements are provided to ensure the visual and audible alarm in the event of either lubricating oil level or pressure falling below safe level, considering the rate of circulation of oil in the engine;

.59 checking if for propulsion and lift devices appropriate arrangements are made to ensure that ingestion of debris or foreign matter and possibility of injury to personnel from shafting rotating parts is minimized and that, where necessary, inspection and removal of debris can be performed safely in service;

.60 checking if oil fuel, lubricating oil and other flammable oil lines are screened or otherwise suitably protected to avoid, as far as practicable, oil spray or oil leakages onto hot surfaces, into machinery air intakes or other sources of ignition;

.61 checking if safe and efficient means of ascertaining the amount of oil fuel contained are provided in any oil fuel tank;

.62 where daily service fuel tanks are filled automatically or by remote control, checking if means are provided to prevent overflow spillages;

.63 where daily service oil fuel tanks or settling tanks are fitted with heating arrangements, checking if a high temperature alarm is provided if the flashpoint of the oil can be reached due to failure of the thermostatic control;

.64 checking the operation of bilge pumping system together with remote control system and automation, if applicable, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 8/8.4;

.65 checking the operation of bilge water high level alarm system, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter. 8/8.4;

.66 checking the operation of ballast, cooling water, fuel and lubricating oil systems;

.67 inspecting the overspill piping installation, venting installation and measurements piping;

.68 checking if failure of any remote or automatic control systems initiates an audible and visual alarm and does not prevent normal manual control;

.69 checking if visual indications of bilge valves are provided, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.8.6;

.70 checking if each bilge main is provided with minimum two ejector pumps supplied by independent emergency generators and one of them has automatic and manual starting, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.8.2;

.71 checking if engine and pump room are provided with two independent high bilge-water level alarms – visual and audible alarm;

.72 checking if ballast system brings the unit from maximum normal operating draught to a severe storm draught within 3 hours, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.9.2;

.73 checking if the ballast system is provided with at least two independent pumps, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.9.3;

.74 checking if every pump is provided with emergency source of power;

.75 checking if visual closed/open indications of pump valves are provided according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.9.8;

.76 checking if central ballast control station is provided with control and indicating systems, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.9.10;

.77 checking if power-actuated ballast valves are turned to the closed position upon loss of control power, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.9.13;

.78 checking if unit is provided with arrangement to enable the anchor cable releasing after loss of main power, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.4;

.79 checking if each windlass is provided with two independent power-operated brakes.Where Administration allows, one of the brakes may be replaced by a manually operated brake, according to MODU *Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.7;

.80 checking the operation of communication systems between locations critical to the anchoring operation, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.13;

.81 checking if power-operated braking system is provided in case of loss of power to the windlasses, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.9;

.82 checking if means are provided to indicate cable tension and speed and direction of wind, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.12;

.83 checking if electrical installations essential to safety are provided with emergency source of power, after shutdown of main source of power;

.84 checking if the station or stations in the operating compartment from which control of craft manoeuvring and/or of its main machinery is exercised is provided, within easy reach of the crew member at that station, with controls for use in an emergency to:

- activate fixed fire-extinguishing systems;
- close ventilation openings and stop ventilating machinery supplying spaces covered by fixed fire-extinguishing systems;
- shut off fuel supplies to machinery in main and auxiliary machinery spaces;
- disconnect all electrical power sources from the normal power distribution system (the operating control shall be protected to reduce the risk of inadvertent or careless operation); and
- stop main engine(s) and auxiliary machinery;

.85 checking if alarm systems are provided which announce at the craft's control position, by visual and audible means, improper or hazardous operation;

.86 checking if emergency alarm giving indication of conditions requiring immediate action is distinctive and in full view of crew members in the operating compartment, and if it reacts to:

- activation of a fire detection system;
- total loss of normal electrical supply;
- over speed of main engines;
- thermal runaway of any permanently installed nickel-cadmium battery;

.87 checking the operation of alarm systems;

.88 checking if manual recovery of propulsion is possible after automatic shut-down;

.89 checking if electrical installations, including primary source of power and lighting system conform to approved documentation, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5/5.2;

.90 checking if an independent and a self-contained emergency source of electrical power sufficient to supply all necessary equipment is provided, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5.3;

.91 checking if a transitional independent and a self-contained emergency source of electrical power sufficient to supply all necessary equipment is provided, if applicable, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5/5.3.8;

.92 checking if starting arrangement for each emergency generating set is satisfactory, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5/5.4;

.93 checking if cables are properly distributed, having due regard to separation of main and emergency source power cables;

.94 checking if steering gear and stabilization device are served by at least two independent sources of power in required situations;

.95 checking, where applicable, emergency lighting arrangement, as well as testing this lighting;

.96 checking if means are provided to protect against electric shock and electromagnetic field, fire or another hazards of electrical origin according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5/5.5;

.97 checking if general emergency alarm is audible throughout all accommodation and normal crew working spaces and open decks, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10.16.1. Control stations for activating the alarm shall be installed to the satisfaction of the Administration. The numbers of signals used shall be limited to the following: general emergency signal, fire alarm signal and abandon unit signal. These signals shall be described in the muster list;

.98 checking the operation of general emergency alarm system, checking if warning signals given over the general alarm system are supplemented by instructions given by a public address system, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10.16.2;

.99 checking if general emergency alarm is audible throughout all accommodation and normal crew working spaces and open decks, the minimum sound pressure levels for the emergency alarm tone in interior and exterior spaces being 80 dB (A), in the cabins and cabin bathrooms at least 75 dB (A) and at least 10 dB (A) above ambient noise levels existing during normal equipment operation, according to *LSA Code*, item 7.2;

.100 checking minimum sound pressure levels for broadcasting emergency announcements are 75 dB (A) in interior spaces, 80 dB (A) in exterior spaces according to *LSA Code*, item 7.2;

.101 checking if the alarm continues to function after it has been triggered until it is normally turned off or is temporally interrupted by a message on the public address system;

.102 checking if public address system covers all areas where passengers and crew have access, evacuation routes, and places of embarkation into survival craft, according to *LSA Code*, item 7.2;

.103 checking if public spaces, evacuation routes, exits and life-saving craft embarkation stations are clearly and permanently marked and illuminated with use of emergency system;

.104 checking if at least two widely separated fixed metal ladders or stairways are provided extending from the deck to the surface of the water. If fixed ladders are not installed, checking if alternative means of escape with sufficient capacity are provided, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapters 10.3.7, 10.3.8; the fixed metal ladders or stairways and sea areas in their vicinity shall be adequately illuminated by emergency lighting;

.105 checking if all exits, together with their means of opening are adequately marked for the guidance of crew and rescue personnel outside the craft;

.106 checking if at least two unobstructed evacuation paths are available for the use of each person, if the evacuation paths are disposed so that adequate evacuation facilities are available in the event of any likely damage or emergency conditions and if an adequate lighting is supplied from the main and emergency sources of power, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.3;

.107 checking if all separating divisions, ceilings or linings that are not fire-resisting divisions are of non-combustible or fire-restricting material according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9;

.108 checking if, in case of insulation installed in areas where it could come into contact with any flammable fluids or their vapours, its surface is impermeable to such flammable fluids or vapours;

.109 checking if any exposed surfaces in corridors and stairway enclosures, and linings of bulkheads, walls, ceiling, as well as concealed or inaccessible spaces in all accommodation and service spaces and control stations are – as a minimum standard – constructed of materials having low flame-spread characteristics;

.110 checking if exhaust gas pipes are arranged so that the risk of fire is kept to a minimum;

.111 checking if in accommodation and service spaces, control stations, corridors and stairways, air spaces enclosed behind ceilings, panelling or linings are suitably divided by close-fitting draught stops not more than 14 meters apart, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.2.4;

.112 checking if tanks containing fuel and other flammable fluids are separated from passenger, crew and baggage compartments by vapour-proof enclosures or cofferdams which are suitably ventilated and drained;

.113 checking if fuel oil tanks are not located in, or contiguous, to areas of major fire hazard;

.114 checking if every oil fuel pipe which, if damaged, would allow oil to escape from storage, settling or daily service tank is fitted with a cock or valve directly on the tank, capable of being closed from a position outside the space concerned in the event of a fire occurring in the space in which such tanks are situated, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.10.2;

.115 checking the operation of cut-off valves operated manually or remotely;

.116 checking if pipes, valves and couplings conveying flammable fluids are of steel or other equivalent material fulfilling requirements in respect of strength and fire integrity;

.117 checking if all main inlets and outlets of ventilation systems are capable of being closed from outside the spaces being ventilated. Additionally, such openings to spaces of high fire hazard shall be capable of being closed from the continuously manned positions, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.2.18;

.118 checking if ventilating fans are capable of being stopped from a position outside the space being served and the space where they are installed. Fans that serve spaces of high fire hazard shall be operable from continuously manned control positions. The means provided for stopping the power ventilation serving machinery spaces should be entirely separate from the means provided for stopping ventilation of other spaces, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.2.18;

.119 checking if automatic damage resistant fire dampers are fitted in the ventilation ducts which cross the fire-resisting or smoke tight division;

.120 checking if dampers fitted on fire-resisting or smoke-tight divisions are also capable of being closed manually from each side of the division in which they are fitted, and remotely closed from the continuously manned control station;

.121 checking if areas of major and moderate fire hazard and other enclosed spaces in the accommodation, which are not regularly occupied, are provided with an automatic smoke-detection system and manually operated call points, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.7;

.122 checking if fixed fire-detection and fire alarm systems cover all areas, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.7;

.123 checking if main propulsion machinery rooms are provided with detectors other than smoke detectors and supervised by TV cameras monitored from the operating compartment;

.124 checking if automatic gas-detection and alarm systems are provided to the satisfaction of the Administration, so arranged as to monitor continuously all enclosed areas of the unit in which an accumulation of flammable gas may be expected to occur and capable of indicating it at the main control position by audial and visual means, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.8;

.125 checking if at least two portable flammable gas detection devices are provided, each capable of accurately measuring a concentration of flammable gas, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.9;

.126 checking if manually operated call points are installed throughout the accommodation spaces, service spaces and, where necessary, control stations, according to *SOLAS 74/02*, regulation II-2/7*;*

.127 checking the operation of fire detection system and manual call points;

.128 checking if major fire hazard areas are protected by an approved fixed extinguishing system adequate for the fire hazard that may exist and operable from the control position, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.5;

.129 checking the operation of fire pumps, if water system is fitted;

.130 checking the operation of carbon dioxide system, if fitted;

.131 if foam fire-extinguishing system is fitted, checking quantity of froth, validity date and next laboratory tests date; visual foam tank inspection and checking operation of system using sea water without using froth;

.132 checking in case dry powder extinguisher system is provided, quality of dry powder and performing operation tests;

.133 checking if the fixed extinguishing system is capable of local manual control and remote control from the continuously manned control station;

.134 checking if control stations, accommodation spaces and service spaces are provided with portable fire extinguishers of appropriate types. according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.6;

.135 checking if all portable fire extinguishers are periodically being inspected;

.136 checking if fire pumps and other appropriate associated equipment are fitted and comply with *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.4;

.137 checking the operation of all fire pumps;

.138 checking if helicopter deck complies with *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.11;

.139 checking if it is possible for each door to be opened and closed from each side of the bulkhead according to *SOLAS 74/02*, regulation II-1/25-9;

.140 checking the operation of remote and local closing/opening of the fire doors;

.141 checking if fireman's outfits and personal equipment are easily accessible and ready for use and, where more than one fireman's outfit or more than one set of personal equipment is carried, they are stored in widely separated positions;

.142 checking if at least one international shore connection is provided in the unit, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.4.22;

.143 checking if the life-saving appliances and arrangements meet the requirements of chapter III of the *SOLAS 74/02* and that they are approved by the Administration;

.144 checking if the life-saving appliances are of approved type and have successfully undergone tests specified in *IMO res. A.520(13), A.689(17) and MSC.81(70) as amended*;

.145 checking if life-saving appliances are marked with production or validity date;

.146 checking if every lifeboat carries portable VHF radiotelephone apparatus and additionally, at least two portable VHF radiotelephone apparatus are carried on the unit and stowed in such locations that they can be rapidly placed in any liferaft, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10.13.1 (VHF radiotelephone apparatus shall comply with *SOLAS 74/02*, reg. III/6.2.1)*;*

.147 checking if every lifeboat carries radar transponder and additionally at least two radar transponders are carried on the unit and stowed in such locations that they can be rapidly placed in any liferaft (all radar transponders shall fulfil the requirements of *SOLAS 74/02*, reg. III/6.2.2*);*

.148 checking if craft is provided with emergency means of communication comprising either fixed or portable equipment or both for two-way communication between emergency control stations, muster and embarkation stations and strategic positions on board;

.149 checking if craft is provided with a portable daylight signalling lamp which is available for use in the operating compartment at all times and which is not dependent on the craft's main source of electrical power, according to *SOLAS 74/02*, reg. V/19;

.150 checking if craft is provided with at least 12 rocket parachute flares in accordance with the requirements of regulation 3.1 of the *LSA Code*, stowed in or near the operating compartment. If the unit does not have a navigating bridge, the flares shall be stowed in location approved by the Administration, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.14;

.151 checking if a line-throwing appliance complying with the requirements of regulation 7.1 of the *LSA Code* is provided, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.15;

.152 checking if unit is provided with at least eight lifebuoys, complying with *LSA Code* item 2.1.1. Lifebuoys shall be so placed as to be readily accessible from units open decks. Units over the 100 meters of the total length shall be provided with lifebuoys according to *SOLAS 74/02*, reg. III/1; checking if at least one lifebuoy is provided adjacent to each normal exit from the craft and on each open deck to which passengers and crew have access;

.153 checking if at least half of total number of lifebuoys are provided with self-igniting lights complying with *LSA Code* (item 2.1.2) and if at least two such lifebuoys are provided with self-

activating smoke signals capable of quick release from the navigation bridge. However, the lifebuoys provided with self-igniting lights shall not include those provided with lifelines referred to in .154;

.154 checking if at least two lifebuoys are fitted with a buoyant lifeline, the length of which shall be at least 1.5 times the distance from the deck of stowage to the waterline at light ship draught or 30 m, whichever is greater, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.12.3;

.155 checking if each lifebuoy is marked in block capitals of the Roman alphabet with the name and port of registry of the unit on which it is carried, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10.12.4;

.156 checking if a lifejacket complying with the requirements of regulation 2.2.1 and 2.2.2 of the *LSA Code* is provided for every person on board the craft and, in addition checking if a sufficient number of lifejackets is carried for persons on watch and for use at survival craft and rescue boat stations, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.10;

.157 checking if all lifejackets are fitted with a light, which complies with the requirements of regulation 2.2.3 of *LSA Code*, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.2;

.158 checking if lifejackets are so placed as to be readily accessible and their positions are clearly indicated, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.1;

.159 checking if an immersion suit, complying with the requirements of regulation 2.3 of *LSA Code* is provided for every person on board and, in addition checking if a sufficient number of immersion suits is carried for persons on duty in locations where their immersion suits are not readily accessible, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10.11;

.160 checking if clear instructions to be followed in the event of an emergency are provided for each person on board, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.18.2;

.161 checking if muster lists complying with the requirements of regulation III/8 of the *SOLAS 74/02* are exhibited in conspicuous places throughout the craft;

.162 checking if illustrations and instructions in appropriate languages are posted in public spaces and are conspicuously displayed at muster stations to inform crew members of:

- their muster station;
- the essential actions they must take in an emergency;
- the method of donning lifejackets;

.163 checking if illustrations and instructions are posted in the vicinity of survival craft and their launching controls, easily seen under emergency lighting conditions, illustrating the purpose of controls and the procedures for operating the appliances, using symbols in accordance with the recommendations of the IMO, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.17;

.164 checking if the survival craft is stowed so as to enable its release from lashings from the stowage position (or its vicinity), and from the steering compartment (or its vicinity);

.165 checking if survival craft launching stations are in such positions as to ensure safe launching having particular regard to clearance from the propeller or water jet and steeply overhanging portions of the hull, as well as checking if these positions are adequately illuminated by the lighting supplied from the emergency source of electrical power according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.4;

.166 checking if launching and recovery operator on the unit is able to observe the survival craft at all times during launching and lifeboats during recovery, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.6.2;

.167 checking if the area of water onto which survival craft shall be launched is adequately illuminated by the lighting supplied from the main and emergency sources of electrical power, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.6.6;

.168 checking if alleyways, stairways and exits giving access to the muster and embarkation stations are adequately illuminated by lighting supplied from the main and emergency source of electrical power, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.3.4;

.169 checking if every liferaft is stowed with the weak link of its painter permanently attached to the unit and with a float-free arrangement, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.5.6;

.170 carrying out the trial launch of at least one survival craft during abandon the ship drill;

.171 where davit-launched survival craft are not fitted, checking if Maritime Evacuation System (MES) or equivalent means of evacuation are provided;

.172 checking if falls used in launching have been turned end for end at intervals of not more than 30 months and renewed when necessary due to deterioration of the falls or at intervals of not more than five years, whichever is the earlier. Where a fall cannot be turned end for end, a careful inspection shall take place after 24 months. If the inspection shows that the fall is faultless, it need not to be changed for another period of 24 months. However, a fall which cannot be turned end for end is always be changed at intervals of not more than 4 years, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.18.4;

.173 checking if spares and repair equipment are provided for life-saving appliances and their components which are subject to excessive wear or consumption and need to be replaced regularly, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.18.5;

.174 checking, by verification of the log-book entries, if life-saving appliances, including survival craft equipment and emergency lighting are inspected monthly using the checklist required by regulation III/36.1 of the *SOLAS 74/02*;

.175 checking if every inflatable liferaft, inflatable lifejacket and MES is serviced at an approved service station having appropriate technical equipment and personnel, at intervals not exceeding 12 months (provided where in any case this is impracticable, the Administration may extend this period to 17 months), according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.18.8;

.176 checking if every hydrostatic release unit is serviced at an approved service station having appropriate technical equipment and personnel, at intervals not exceeding 12 months (provided where in any case this is impracticable, the Administration may extend this period to 17 months), according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.18.10;

.177 checking if unit being a drilling ship or barge is provided with at least two survival crafts the capacity of which on either side shall be sufficient to accommodate not less than 100% of the total number of persons the craft is certified to carry, according to *SOLAS 74/02*, chapter III/31.1;

.178 checking if unit being a drilling ship or barge is additionally provided with liferaft or liferafts with sufficient capacity to accommodate 100% of the total number of persons the craft is certified to carry, capable of being launched on either side of the unit; if liferaft or liferafts are not capable of being launched on either side of the unit, the total capacity of liferafts capable of being launched on either side of the unit shall be sufficient to accommodate the total number of persons the craft is certified to carry, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.2.2;

.179 checking if in drilling ship or barge, where the survival craft is stowed in position which is more than 100 m from the stem or stern, at least one additional liferaft is stowed as far forward or aft, depending on where the distance of 100 meters is exceeded. Such a liferaft or liferafts shall be securely fixed so as to permit manual release, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.2.3;

.180 checking if self-elevating or column-stabilized unit carries lifeboats, installed in at least two widely separated locations on different sides or ends of the unit, with sufficient capacity to accommodate not less than 100% of the total number of persons the craft is certified to carry, even in case of unusable lifeboats on any one side, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.2.4;

.181 checking if self-elevating or column-stabilized unit is provided with life-rafts, according to *LSA Code*, with sufficient capacity to accommodate not less than 100% of the total number of persons the craft is certified to carry; liferafts shall be capable of being launched on either side of the unit; if liferaft or liferafts are not capable of being launched on either side of the unit, the total capacity of liferafts capable of being launched on either side of the unit shall be sufficient to accommodate the total number of persons the craft is certified to carry, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.2.5;

.182 in case the lifeboats, due to size or configuration of the unit, cannot be located in widely separated locations, the Administration may permit the aggregate capacity of the lifeboats to accommodate only the total number of persons on board. However, the liferafts under .181 shall be served by launching appliances to enable launching on either side of the unit, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.2.6;

.183 checking if unit is provided with at least one rescue boat, equipped as complying with *LSA Code*, chapter V. A lifeboat may be accepted as a rescue boat, provided that it also meets requirements for rescue boat, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments; chapter 10/10.7;

.184 checking if rapid recovery of the rescue boat is possible when loaded with its full complement of persons and equipment; if the rescue boat is also a lifeboat, rapid recovery shall be possible when loaded with at least six persons, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.9.3;

.185 checking if all lifeboats required for abandonment by the total number of persons permitted on board, are capable of being launched with their full complement of persons and equipment within 10 min from the time the signal to abandon the unit is given, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.6.8;

.186 checking if davit-launched survival craft muster and embarkation stations are so arranged as to enable stretcher cases to be placed in survival craft, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.3.5;

.187 checking if all life-saving appliances are in working order and ready for immediate use, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 10/10.18.1;

.188 checking if the navigational lights and means of visual and acoustic signalling are in operational readiness to comply with *COLREG* 72 with amendments, regulations 20 to 24, 27 to 30 and 33;

.189 checking if unit in operation is provided with radio installations capable of complying with the functional requirements prescribed by *SOLAS 74/02*, chapter IV; radio installations shall be operable from the navigation bridge;

.190 checking if additional radio equipment is installed in a room or position, which could be a bridge or an emergency control room, situated as far as practicable from the radio equipment, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments; chapter 11/11.5.2;

.191 checking if unit is provided with a set of equipment according to declared A1 area of sailing described in *SOLAS*, chapter IV/7.1.1; A2 area described in *SOLAS*, chapter IV/7.1.1 and 9.1.1; A3 area described in *SOLAS*, chapter IV/7.1.1, 10.1.1 and 10.1.2 or alternatively 7.1.1 and 10.2.1; A4 area described in *SOLAS*, chapter IV/7.1.1 and 10.2.1;

.192 checking if unit engaged on voyages in sea area A1 is provided with: VHF radio installation capable of transmitting and receiving DSC on the frequency 156.525 MHz (channel 70) with duplication, watch receiver operating on channel 70, radar transponder capable of operating in the 9 GHz band, NAVTEX receiver, satellite emergency position-indicating radio beacon (satellite EPIRB) operating in the 406 MHz band or radio beacon capable of transmitting a distress alert using DSC on VHF channel 70 and providing for locating by means of radar transponder operating in the 9 GHz band,

.193 checking if unit engaged on voyages in sea area A2 is provided with: VHF radio installation capable of transmitting and receiving DSC on the frequency 156.525 MHz (channel 70) with duplication, watch receiver operating on channel 70, MF/HF installation with DSC and direct-printing telegraphy with duplication, watch receiver capable of maintaining DSC watch on 2187.5 kHz band, satellite emergency position-indicating radio beacon (satellite EPIRB) operating in the 406 MHz band, radar transponder operating in the 9 GHz band, NAVTEX receiver;

.194 checking if unit engaged on voyages in sea area A3 is provided with: VHF radio installation capable of transmitting and receiving DSC on the frequency 156.525 MHz (channel 70) with duplication, watch receiver operating on channel 70, MF/HF installation with DSC and direct-printing telegraphy with duplication or INMARSAT A or INMARSAT C ship earth station, EGC receiver, equipment capable of maintaining DSC watch on 2187.5 kHz band, satellite emergency position-indicating radio beacon (satellite EPIRB) operating in the 406 MHz band, providing for locating by means of radar transponder operating in the 9 GHz band, NAVTEX receiver;

.195 checking if unit engaged on voyages in sea area A4 is provided with: VHF radio installation capable of transmitting and receiving DSC on the frequency 156.525 MHz (channel 70) with duplication, watch receiver operating on channel 70, MF/HF installation with DSC and direct-printing telegraphy with duplication, EGC receiver, watch receiver capable of maintaining DSC watch on 2187.5 kHz band, satellite emergency position-indicating radio beacon (EPIRB) operating in the 406 MHz band, radar transponder operating in the 9 GHz band, NAVTEX receiver;

.196 confirming the provision of equipment for the radio installation with due regard to the declared sea areas in which the unit will be engaged and the declared means of maintaining availability of functional requirements;

.197 examining the position, physical and electromagnetic protection of each radio installation;

.198 checking the possibility of transmitting distress communication from ship to shore, from the conning position, by at least two separate and independent means, each using different system or network;

.199 examining all antennas including visual checking all antennas and feeders for satisfactory sitting and absence of defects;

.200 checking all antennas cables and insulations;

.201 checking if means are provided to protect against electric shock and electromagnetic field;

.202 checking if reserve source of energy is capable of simultaneously operating basic and/or duplicated equipment for a period of one hour or six hours and, where a reserve source of energy consists of a rechargeable accumulator battery or batteries, checking the arrangement of batteries and capability of being recharged within 10 hours;

.203 examining the technical condition and operation of VHF equipment, consisting of:

- checking for operation on channels: 6, 13 and 16;
- transmitter frequency deviations measurements;
- checking radio frequency and power output;
- checking for correct operation of all controls including priority of control units;
- checking that the equipment operates from the main, emergency (if provided) and reserve sources of energy,
- checking for correct operation by on-air contact with a coast station or other ship;

.204 examining the technical condition and operation of the VHF DSC controller, and channel 70 DSC watch receiver consisting of:

– checking for correct transmission by means of a routine or test call to a coast station, other ship, on board duplicate equipment or special test equipment;
– checking for correct reception by means of a routine or test call from a coast station, other ship, on board duplicate equipment or special test equipment;
– checking the audibility of the VHF/DSC alarm;
– checking that the equipment operates from the main, emergency (if provided) and reserve sources of energy;
– performing an off-air check confirming the correct Maritime Mobile Service Identity is programmed in the equipment;

.205 examining the technical condition and operation of MF/HF equipment, consisting of:
– checking that the equipment operates from the main, emergency (if provided) and reserve sources of energy;
– checking the antenna tuning in all appropriate bands;
– checking for correct operation by contact with a coast station;
– checking radio frequency and power output;
– checking receiver performance by monitoring known stations on all appropriate bands;
– if control units are provided outside the navigating bridge, checking the control unit on the bridge has first priority for the purpose of initiating distress alerts;

.206 examining the technical condition and operation of direct-printing telegraphy HF equipment, consisting of:
– checking that the equipment operates from the main, emergency (if provided) and reserve sources of energy;
– checking correct operation by inspection of recent hard copy or by a test with a coast radio station;
– confirming that the correct selective calling number (MMSI) is programmed in the equipment;

.207 examining the technical condition and operation of MF/HF DSC equipment, consisting of:
– checking that the equipment operates from the main, emergency (if provided) and reserve sources of energy;
– checking operation by means of a test call on MF and/or HF to a coast radio station if the rules of the berth permit the use of MF/HF transmissions;
– checking the off-air self-test programme;
– checking the audibility of the MF/HF DSC alarm;
– confirming that the correct MMSI number is programmed in the equipment;

.208 examining the technical condition and operation of MF/HF DSC watch receiver, consisting of:
– confirming that only distress and safety DSC frequencies are being monitored;
– checking that a continuous watch is being maintained whilst keying MF/HF radio transmitters;
– checking for correct operation by means of a test call from a coast station or other ship;

.209 examining the technical condition and operation of INMARSAT ship earth station with EGC receiver, consisting of:
– checking that the equipment operates from the main, emergency (if provided) and reserve sources of energy;
– checking that where an uninterrupted supply of information from the ship's navigational or other equipment is required ensuring such information remains available in the event of failure of the ship's main or emergency source of electrical power;
– checking the distress function by means of an approved test procedure where possible;
– checking for correct operation by monitoring incoming messages or inspecting recent hard copy;

.210 examining the technical condition and operation of NAVTEX receiver, consisting of:
– checking for correct operation by monitoring incoming messages or inspecting recent hard copy;
– running the self-test programme if provided;

.211 examining the technical condition and operation of Enhanced Group Call (EGC) receiver, consisting of:

– checking for correct operation and area by monitoring incoming messages or by inspecting recent hard copy;
– running the self-test programme if provided;

.212 examining the technical condition and operation of Maritime Safety Information by HF NBDP, if fitted, consisting of:
– checking that the equipment operates from the main, emergency (if provided) and reserve sources of energy;
– checking for correct operation by inspection of recent hard copy or by a test with a coast radio station;
– checking coding the equipment with MMSI number;

.213 examining the 406 MHz EPIRB (*SOLAS 74/88* reg. IV/7 and 14), including:
– checking position and mounting for float free operation;
– verifying the presence of a firmly attached lanyard in good condition;
– carrying out visual inspection for defects;
– running the self-test program;
– checking that the EPIRB ID is clearly marked on the outside of the equipment;
– decoding the EPIRB identity number confirming it is correct;
– examining documents of EPIRB or finding the beacon data through contact points defined by MID Code;
– checking the battery expiry date;
– checking the hydrostatic release unit and its expiry date, if fitted;
– checking the emission in the 406 band using the self-test mode or an appropriate device to avoid transmission of a distress call to the satellites;
– if possible, checking the emission on the 121.5 MHz frequency using self-test mode or an appropriate device to avoid activating the satellite system; after test and mounting the beacon, examining if it is not activated;
– verifying the presence of beacon operating instructions;
– checking that the EPIRB has been maintained by an approved by the manufacturer shored-based maintenance provider at intervals not exceeding 5 years;

.214 examining the technical condition and operation of two-way VHF radiotelephone apparatus, consisting of:
– checking for correct operation on channel 16 and one other by testing with another fixed or portable VHF installation;
– checking the battery charging arrangements where re-chargeable batteries are used;
– checking the expiry date of primary batteries where used;
– where appropriate, checking any fixed installation provided in a survival craft;

.215 examining the technical condition and operation of radar transponder, consisting of:
– checking the position and mounting;
– monitoring response on ship's 9 GHz radar;
– checking the battery expiry date;

.216 checking the set of measuring equipment and spare parts according to declared sea area in which the unit is engaged and the declared options for maintaining availability of the functional requirements;

.217 checking the operation of means of communication between operating compartment and spaces containing essential machinery, including any emergency steering position;

.218 checking the operation and audibility of public address and safety announcements to all areas where crew has access;

.219 checking if there is any effective protection from noise during the unit operation in case noise level in radio room causes jamming;

.220 checking if unit provided with means for cooperation with helicopter is equipped with the VHF radiotelephone for two-way on-scene communication using aeronautical frequencies 121.5 MHz and 123.1 MHz, according to ICAO requirements and *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 11/11.6;

.221 checking the readiness for use and operation of electronic position fixing system receiver, Electronic Chart Display and Information System (ECDIS) with its backup system, Automatic Identification System (AIS), Voyage Data Recorder (VDR) and all attached sensors, if fitted. VDR test shall be performed yearly by an approved by manufacturer service supplier in order to check accuracy, period of storing the data and means of access and retrieval of stored data. In addition, all securing devices and homing beacon of VDR shall be tested, if applicable, according to *SOLAS 72/02*, chapter V;

.222 checking if unit is provided with Ship Safety Alert System (SSAS), according to *SOLAS 74/02*, chapter XI-2/6;

.223 checking if unit is fitted with radio means of communication between steering position, control stations, command position and compartment with radio equipment, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 11/11.7.

.224 checking if radio equipment complies with appropriate performance standards which is not inferior to those adopted by IMO. Equipment installed prior to 1 February 1992 may be exempted from full compliance with the appropriate performance standards at the discretion of the Administration, provided that the equipment is compatible with equipment complying with the performance standards, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 11/11.8;

.225 checking if radio equipment is subject to survey by the Administration, which issues the license or its representative before the radio station is put into service. When the unit is moved and comes under the administrative control of another coastal State, a survey may be performed by that State or its authorized representative. Radio station of unit shall be subjected to survey once every 12 months. In every case when an authorized representative of the coastal State preformes an inspection, a report shall be issued and kept with the radio documents, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments; chapter 11/11.10;

.226 checking if the copy of *Certificate of Compliance* for voyage data recording system (VDR), issued yearly by service supplier, having manufacturer's authorization, dated according to compliance tests and with description of tests conditions is on board the unit;

.227 checking if minimal distance is kept between fixed electrical installation and main and steering compasses;

.228 checking the technical condition and operation of magnetic compass, as well as correct reading on repeaters fitted at emergency steering positions, if applicable, according *to SOLAS 72/02*, chapter V/19;

.229 checking the technical condition and operation of gyro-magnetic compass, as well as correct reading on repeaters, if fitted;

.230 checking the technical condition and operation of speed and distance measuring device, if fitted, according *to SOLAS 72/*02, chapter V/19;

.231 checking the technical condition and operation of echo-sounding device, if fitted, and checking range and scale of measuring;

.232 checking the technical condition and operation of radar installation and automatic plotting device, if fitted;

.233 checking the technical condition and operation of electronic position fixing system receiver;

.234 checking the technical condition and operation of rudder angle and rate of turn indicators;

.235 checking the technical condition and operation of night-vision equipment, if applicable;

.236 checking the technical condition and operation of automatic steering aid, if applicable;

.237 checking the technical condition and operation of decision support system for masters, if applicable.

19.1.5 Completion of the initial survey shall consist of:

.1 after satisfactory survey, issuing the Mobile *Offshore Drilling Unit Safety Certificate*.

19.2 Annual Surveys

19.2.1 Examination of current certificates and other records kept on board the unit shall consist of:

.1 checking the Mobile Offshore Drilling Unit Safety Certificate;

.2 checking, if applicable, the *International Tonnage Certificate*;
.3 checking the *International Load Line Certificate or International Load Line Exemption Certificate*;
.4 checking, if applicable, the validity of *International Oil Pollution Prevention Certificate*;
.5 checking the *Certificate of Class* if the unit is classified by classification society;
.6 checking the *Safe Manning Certificate*;
.7 checking, if applicable, that the manifest, or detailed cargo plan for stowage of dangerous goods is on board;
.8 checking the *Safe Manning Manual*;
.9 checking if new equipment is installed on the craft and if so, checking if this equipment has been approved before installation and confirmed by appropriate certificates;
.10 confirming that loading procedures and limitations, including maximum operational weight, centre of gravity position, distribution of load and, where practicable, lashing procedures are onboard;
.11 checking if adequate and up-to-date charts and publications necessary for the intended voyage are on board;
.12 checking the date of validity of Radio Licence issued by the Flag State;
.13 checking the entries in the GMDSS Log book;
.14 checking the issued radio report, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments; chapter 11/11.10;
.15 checking if records are kept in relation to:
- prescribed parameters of craft operation;
- trainings/procedures in respect of safety and emergency;
- hours of work for crew handling the craft;
- number of passengers on board;
- fulfilling all legal rules by which craft is covered;
- maintaining the craft and its machinery equipment up to approved maintenance plans;
- damages and repairs.

.16 checking if master and all officers having managerial positions have all necessary diplomas and certificates required for the type of craft, according to *STCW Convention*
.17 checking if *Training Manual* is on board, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14;
.18 checking if *Maintenance and Servicing Manual* is on board;
.19 checking if stability booklet is on board;
.20 checking if the *Contingency Plan* is on board;
.21 checking if the *Oil Pollution Prevention Plan* is on board;
.22 checking, if applicable, that the *Oil Record Book* is on board;
.23 checking, if applicable, that the *Garbage Record Book* and *Garbage Management Plan* are on board;
.24 checking contingency plans, including actions to be taken ashore for every possible scenario and giving data about Search and Rescue (SAR) services and local Administration and other organizations supplying equipment for actions taken by crew;
.25 checking if the fire protection plans are posted or the brochure containing such plan is available and if the duplicate of that plan or brochure is kept in a clearly marked container protecting it from atmospheric influences, placed outside the superstructure, near the entrances;
.26 checking if for every person on board the emergency procedures instruction is provided and posted next to the accommodation, containing general plan and arrangement of emergency exits, fire fighting equipment and life saving appliances, as well as illustrated instruction for donning the lifejacket;
.27 checking if the curve or table of magnetic compass residual deviations and shadow sectors diagram is posted by the radars, according to *SOLAS 74/02, V/19*;
.28 checking documentation of the electronic position fixing receiver, Electronic Chart Display and Information System with its backup system, Automatic Identification System (AIS), Voyage Data Recorder (VDR), if applicable, according to *SOLAS 74/02*, Chapter V;
.29 checking if all radio and navigational devices manuals are on board;
.30 checking if on board life saving appliances maintenance manual is on board;

.31 checking if the *International Code of Signals* is on board, nearby radio equipment station;
.32 checking the date of validity of Radio Licence issued by the Flag State;
.33 checking certificates of GMDSS operators;
.34 checking if up-to-date ITU publications are on board;
.35 checking if service manuals for all radio devices are on board – if at sea maintenance is declared as a means of ensuring operational readiness.

19.2.2 Annual survey of hull, machinery and equipment shall consist of:

.1 self-elevating units survey:
- examination of over water areas of legs in working condition;
- examination of external surfaces of the upper hull or platform (platform elevated to the working condition), with special regard to leg connections to hull;

.2 column-stabilized units survey:
- over water areas of columns, with special regard to structural integrity of girders, and columns connections to upper structure;
- survey of upper deck, including helideck;
- survey of supporting elements and plating of the lowest deck;
- survey of drilling derrick and its supporting structure;
- survey of coamings, guard railings, hawse-holes, bollards, ventilating and exhaust fans on the over-water construction decks;

.3 drilling ship or barge type units:
- over water hull;
- survey of upper deck, including helideck;
- survey of drilling derrick and its supporting structure;
- survey and test of dynamic positioning system, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.12;
- examining the drilling fluid piping system and checking the entries in logbook;
- checking the operation of drives of doors separating the dangerous zones;
- examining and checking the operation of independent ventilation of hazardous areas and warning and alarm system;
- survey of explosion-proof protections;

.4 checking that at intervals not exceeding 36 months, underwater survey of the hull has been performed. Surveys shall be performed twice over the period of five years; examination of underwater hull survey, if required, shall consist of:
- surface-type units (drilling ship or barge type units) underwater survey of: external surfaces of the hull, keel, stem and stern frames, rudder, sea chest and drainage plugs;
- self-elevating units survey: under water areas of legs;
- survey of: external surfaces of the columns, underwater hull, footings and other underwater elements;
- examination of all valves of underwater part of the hull;
- examination of braces connecting the columns and other underwater elements;
- examination of propeller shafts, propellers and propulsion shafts;
- examination of rudder blades and stocks;
- survey of inner structure of columns and other underwater elements;

.5 checking the ballast system, cooling water system, steam system, compressed air line, fuel oil system, lubricating-oil system, hydraulic system;

.6 leak proof tests: bilge and ballast pipelines, fuel lines, compressed air lines, steam lines, overflow lines, venting pipelines, sounding pipelines and checking valves with special regard to remotely controlled valves;

.7 examination of the drilling fluid piping system together with fittings and checking the entries in logbook;

.8 checking if all boilers, machinery, steam, hydraulic and pneumatic installations and their associated fittings which are under internal pressure are protected properly according to: 19.1.4, items .28, .29, .34, .40, .45 to .48;

.9 checking if for all steam boilers, associated vessels and heating oil boilers with working pressure of 0.07 MPa and more, internal inspection has been performed twice over the period of five years (every 2 to 3 years), and external inspection performed every year. If the unit is equipped only with one boiler, then after 8 years' service internal inspection shall be done every year;

.10 checking if means to ensure the watertight integrity meet the requirements of *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.6;

.11 checking watertight and fire bulkheads, where the bulkheads are penetrated for the passage of electrical cables;

.12 controlling if the freeboard is properly marked, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.7;

.13 checking if all bilge, ballast, general use, oil, fuel pumps work properly; checking shall be done by the examination and work tests;

.14 checking, by external examination, if drilling pumps work properly and checking the entries in logbook;

.15 examination and checking the operation of gear pinions and leg racks of self-elevating units;

.16 checking the combustion engines by the examination and tests of the safety arrangements of engines, examination of high-pressure fuel delivery lines and operation tests of starting and maneuvering devices of engines;

.17 checking if mechanisms are capable of reversing the direction of thrust in sufficiently short time and stopping the unit in an acceptable distance, including the effectiveness of other maneuvering devices;

.18 checking if dangerous goods are stored safely and appropriately according to the nature of the goods and separated one from another, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.1, according to 19.1.4, items .35 to .39;

.19 checking if air compressors, air and drilling fluid pressure storage containers and safety valves work properly, examining drilling fluid pressure containers required by service manuals and checking the entries in logbooks;

.20 checking if machinery can be brought into operation from the dead ship condition, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2.9;

.21 testing the visual and audible alarms in the event of failure of liquid cooling system;

.22 checking the operation of bilge pumping system together with remote control system and automatics, if applicable, according to *MODU* Code in the version adopted by resolution A.649(16) with amendments, chapter 8/8.4;

.23 checking the operation of bilge-water high level alarm system;

.24 checking the operation of anchoring devices and of braking system, according to 19.1.4.78 to 19.1.4.82;

.25 checking if safety essential electrical installations are provided with emergency source of power, after shutdown of main source of power;

.26 checking the operation of main, emergency and transitional emergency source of electrical power, if applicable, and examining the electrical installation and operation tests of main and emergency lighting;

.27 checking the lightning and grounding protection;

.28 checking if general emergency alarm is audible throughout all accommodation and normal crew working spaces and open decks, the minimum sound pressure level for the emergency alarm tone shall be 80 dB (A), in the sleeping cabins and in cabin bathrooms shall be 75 dB(A) and at least 10 dB (A) above ambient noise levels existing during normal equipment operation, according to *LSA Code*, item 7.2;

.29 checking if minimum sound pressure level for the emergency alarm tone in interior spaces is not lower than 75 dB(A) and in exterior spaces it is not lower than 80 dB (A), according to *LSA Code*, item 7.2;

.30 checking if the alarm continues to function after it has been triggered until it is normally turned off or is temporary interrupted by a message on the public address system;

.31 checking if public address system covers all areas where crew has access, escape routes, and places of embarkation into survival craft, according to *LSA Code*, item 7.2;

.32 checking if public spaces, escape routes, exits and survival craft embarkation stations are clearly and permanently marked and illuminated by emergency lighting;
.33 checking if all exits, together with their means of opening, are adequately marked to inform the crew and rescue personnel outside the craft;
.34 surveying fire-protection system, according to: 17.1.4, items .107 to .142;
.35 checking if helicopter deck complies with *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.11;
.36 surveying life-saving appliances, according to: 17.1.4, items .143 to .188;
.37 checking if the navigational lights arrangement and means of visual and acoustic signaling are kept in operational readiness to comply with *COLREG 72* with amendments, regulations 20 to 24, 27 to 30 and 33, if applicable;
.38 checking radio installations, according to items: 17.1.4.189 to 17.1.4.226;
.39 checking the technical condition and operation of magnetic compass, as well as correct reading on repeaters fitted at emergency steering positions, if applicable;
.40 checking the technical condition and operation of gyro-magnetic compass, as well as correct reading on all repeaters;
.41 checking the technical condition and operation of speed and distance measuring device;
.42 checking the technical condition and operation of echo-sounding device and checking range and scale of measuring;
.43 checking the technical condition and operation of radar installation and automatic plotting device, if fitted;
.44 checking the technical condition and operation of electronic position fixing system receiver;
.45 checking the technical condition and operation of rudder angle and rate-of-turn indicators;
.46 checking the technical condition and operation of night-vision equipment, if applicable;
.47 checking the technical condition and operation of automatic steering aid, if fitted;
.48 checking the operation of decision support system for masters, if applicable.

19.2.3 Completion of the annual survey shall consist of:
.1 after satisfactory survey, issuing the Mobile *Offshore Drilling Unit Safety Certificate*;
.2 in case of unsatisfactory result of survey, refer to 1.4.8 of *Part I – Survey Regulations*.

19.3 Renewal Surveys

19.3.1 Survey of technical documentation of hull, machinery and equipment of mobile offshore drilling unit shall consist of:
– an appraisal of the assumptions made and limitations proposed in relation to service parameters of the unit and checking if declared assumptions in relation to service parameters have not changed;
– if the assumptions made in relation to service parameters of the unit or technical arrangements changed, survey of technical documentation shall be made, according to items: 19.1.1.2 to 19.1.1.32.

19.3.2 Survey of documentation to be carried on mobile offshore drilling unit shall consist of:
.1 checking the Mobile Offshore Drilling Unit Safety Certificate;
.2 checking, if applicable, the International *Tonnage Certificate*;
.3 checking the *International Load* Line *Certificate or International Load Line Exemption Certificate*;
.4 checking, if applicable, the validity of *International Oil Pollution Prevention Certificate*;
.5 checking the *Certificate of Class* if the unit is classified by classification society;
.6 checking the *Safe Manning* Certificate;
.7 checking if *Craft Operating Manual* is on board;
.8 checking, if applicable, that the manifest is on board;
.9 checking if new equipment is installed on the craft and if so, checking if this equipment has been approved before installation and confirmed by appropriate certificates;
.10 checking if loading procedures and limitations, including maximum operational weight, centre of gravity position, distribution of load and, where necessary, lashing procedures are on board;
.11 checking if adequate and up-to-date charts and publications necessary for the intended voyage are on board;

.12 checking that a copy of the *Automatic Identification System (AIS)* Test *Report*, issued after an annual survey by radio service company approved by BCS, is retained on board the ship;

.13 checking that a copy of the *Certificate of Compliance* and a copy of the *Voyage Data Recorder (VDR) Test Report*, issued after an annual survey by the company authorized by the manufacturer, are retained on board the ship;

.14 checking the date of validity of Radio License issued by the Flag State;

.15 checking the entries in the *GMDSS Log Book*;

.16 checking the issued radio report, according to *MODU* Code in the version adopted by resolution A.649(16) with amendments, chapter 11;

.17 checking if records are kept in relation to:
- prescribed parameters of unit operation;
- trainings/procedures in respect of safety and emergency;
- hours of work for crew handling the unit;
- number of passengers on board;
- fulfilling all legal rules by which craft is covered;
- maintaining the unit and its machinery to approved maintenance plans;
- damages and repairs.

.18 checking documentation described in items 19.1.2.1 to .21.

19.3.3 Survey of safety manuals of the mobile offshore drilling unit for all exploration and emergency conditions, performed in the case of reconstruction, is covered by subsection 19.1.3, items .1 to .21.

19.3.4 Survey of hull, machinery installations and equipment shall consist of:

.1 checking the hull and machinery installations in scope described in 19.1.4.1 to 19.1.4.9, if rebuilding has been done;

.2 checking that within a period not exceeding 5 years, a lightweight survey has been performed to verify changes in lightweight displacement and longitudinal centre of gravity. The unit shall be re-inclined whenever, in comparison with the approved stability booklet, a deviation from the lightweight displacement exceeding 1% is found or anticipated;

.3 checking if a report of each inclining or lightweight survey and the resulting calculations of the lightweight condition particulars have been submitted to the Administration for approval. The approved report shall be placed on board the craft by the owner in the custody of the master and shall incorporate such additions and amendments as the Administration may in any particular case require; according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.1; amended lightweight condition particulars so obtained shall be used in substitution for such previously approved particulars when calculating the craft's stability;

.4 checking if, according to prepared and agreed program specifying scope and method of inspection and tests, underwater survey of hull has been done. This program shall take into account information obtained during previous survey. First and second 5-year survey may be done by divers, every next survey has to be done on dry-dock, unless other exception is made. Survey shall consist of:
- examination of underwater parts of supporting structures of self-elevating units;
- external examination of columns plating, underwater hulls and footings and other underwater elements;
- examination of all valves of underwater part of the hull;
- examination of braces connecting the columns and other underwater elements;
- examination of propeller shafts, propellers and shaftings;
- examination of rudder blades and stocks;
- examination of inside structure of columns and other underwater elements;
- watertight integrity tests of chosen tanks and spaces inside columns;
- measurements of plating thickness of columns and other underwater elements, hulls of self-elevating units, decks, bulkheads and their braces. With third and each next inspection such measurements are obligatory;

.5 examining the load-bearing construction and supporting elements of the drilling devices;

.6 examining the drilling installation tanks, being part of unit/barge construction;

.7 examining the pressure tanks of drilling installation as per manuals and checking the appropriate entries;

.8 examining the elements of pumps and compressors being a part of drilling installation;

.9 checking the operation of drilling installations and particularly condition of piping;

.10 examining and checking the operation of control and measuring devices of drilling installation items;

.11 checking the hull tightness according to 19.1.4, items .11 to .25;

.12 checking if freeboard is properly marked, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 3/3.7;

.13 checking if all bilge pumps work satisfactorily;

.14 checking if boilers, mechanisms, steam, hydraulic, pneumatic and other installations and their associated fittings under internal pressure are suitably secured, according to 19.1.4, items .28, .29, .34, .40, .45 to .48;

.15 checking if for all steam boilers, associated steam vessels and heating oil boilers with working pressure of 0.07 MPa and more, internal inspection has been performed twice over the period of five years (every 2 to 3 years), and external inspection carried every year. If the unit is equipped with only one boiler, then after 8 years' service internal inspection shall be done every year;

.16 checking if, where required, crankcases of the engines are fitted with relief valves and that these relief valves installation minimizes the risk of injuries to engine-room personnel;

.17 checking if the main propulsion turbine or the main engine and auxiliary mechanisms are fitted with automatic shut-down devices disconnecting in the event of malfunction, such as lubricating oil supply failure, which could lead rapidly to complete breakdown, damage or explosion;

.18 checking and documenting if mechanisms are capable of reversing the direction of thrust in sufficiently short time and stopping the unit in an acceptable distance, including the effectiveness of other manoeuvring devices;

.19 checking if main and auxiliary steering gears are so arranged that single failure of one of them will not impair the integrity of the other;

.20 checking if dangerous goods are stored safely and appropriately to the nature of goods and if incompatible goods are stored separately one from another, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2;

.21 checking if explosives which present a serious risk are stored in an appropriate space and are securely closed; checking if explosives are separated from detonators, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.2;

.22 checking if flammable liquids which give off dangerous vapours and flammable gases are stored in well-ventilated spaces, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.3;

.23 checking if for storage of substances liable to spontaneous heating or combustion precautions are taken to prevent the outbrake of fire, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.4;

.24 checking if the radioactive substances are being stored in a safe manner, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 14/14.2.5;

.25 checking by external examination the operation of compressors and pressure containers for air and drilling fluid and checking safety valves; examination of the pressure tanks for drilling fluid according to the manuals and checking the relevant entries;

.26 checking the operation of valves on piping for bilge, ballast, oil, fuel, compressed air and steam, especially remotely operated valves, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.9;

.27 checking the operation of drilling fluid pipings with fittings by external examination and checking that appropriate entries are being made;

.28 checking if means are provided to sustain or restore the normal operation of propulsion machinery even though one of the essential auxiliaries becomes inoperative;

.29 checking if means are provided to bring the machinery into operation from the dead unit condition, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.2.9;

.30 checking if arrangements are provided to ensure that, in the event of failure in any liquid cooling system, it is immediately detected and alarmed (visual and audible) and if means are instituted to minimize the effect of such failures on machinery served by the system;

.31 checking if machinery installation is suitable for operation as in an unmanned machinery space, including automatic fire-detection system, bilge alarm system, machinery remote control instrumentation and alarms;

.32 checking if the engines are fitted with adequate safety monitoring and control devices as per 19.1.4.51 to 19.1.4.58; checking the high-pressure fuel piping, starting and control equipment; checking the combustion engine crankshaft deflection, thorough examination if working conditions differ from normal conditions or conditions expected by manual;

.33 checking if for propulsion and lift devices appropriate arrangements are made to ensure that ingestion of debris or foreign matter and possibility of injury to personnel is minimized, where necessary, and if inspection and removal of debris can be performed safely in service;

.34 checking if oil fuel, lubricating oil and other flammable oil lines are screened or otherwise suitably protected to avoid, as far as practicable, oil spray or oil leakages onto hot surfaces, into machinery air intakes or onto other sources of ignition;

.35 checking if safe and efficient means of ascertaining the amount of oil fuel contained in any oil fuel tank are provided;

.36 checking the safety arrangements on fuel tanks as per 19.1.4.61 to 19.1.4.63; carrying out the hydraulic tests of piping leading through the fuel tanks, liquid cargo tanks and holds;

.37 checking the operation of bilge pumping system together with remote control system and automatics, if applicable, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 8/8.4;

.38 checking the operation of bilge high level alarm system, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments chapter 4/4.8;

.39 checking the operation of ballast, cooling water, fuel and lubricating oil systems, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments chapter 4/4.9;

.40 external inspecting and checking the watertightness of the overflow piping installation, venting installation and sounding piping; if doubts as to technical condition of piping rise, the hydraulic tests or walls thickness measurements have to be performed;

.41 checking if failure of any remote or automatic control systems initiates an audible and visual alarm and does not prevent normal manual control;

.42 checking if on cut-off valves of bilge system means are provided to indicate whether valve is open or closed;

.43 checking if for each suction manifold at least two independently powered self-priming pumps are provided and if at least one of the pumps is operated remotely and manually;

.44 checking if engine-room and pump-rooms are provided with two independent high level alarm systems (visual and audible alarm);

.45 checking if ballast system provides the possibility of bringing the unit from the maximum normal operating draught up to a severe storm draught within 3 hours, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.9.8;

.46 checking if ballast system is operated by at least two independent pumps;

.47 checking if each pump can be supplied from the emergency source of power;

.48 checking if on each pump means are provided to indicate whether valve is open or closed;

.49 checking if main ballast operation station is equipped with control systems according to *MODU Code* in the version adopted by resolution A.649(16) with amendments chapter 4/4.9.10;

.50 checking if electrically operated ballast valves are set automatically in closed position in the event of loss of main power, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments chapter 4/4.9.13;

.51 checking if means are provided to enable the anchor cable to be released from the unit after loss of main power, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.4;

.52 checking if each windlass is provided with at least two independent power-operated brakes. Administration may allow one of the brakes to be manually operated, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.7;

.53 checking if reliable means of communication are provided between locations critical to anchoring operations; according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.13;

.54 checking if a power-operated braking system is provided in the event of loss of power to the windlass, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.9;

.55 checking if means to indicate cable tension and speed and direction of the wind are provided, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11.12;

.56 checking if operation of electrical equipment essential for safety is ensured after loss of main source of power;

.57 checking if the station or stations in the operating compartment from which control of craft manoeuvring and/or of its main machinery is exercised is provided, within easy reach of the crew member at that station, with controls for use in an emergency to:

- activate fixed fire-extinguishing systems;
- close ventilation openings and stop ventilating machinery supplying air to spaces covered by fixed fire-extinguishing systems;
- shut off fuel supplies to machinery in main and auxiliary machinery spaces;
- disconnect all electrical power sources from the normal power distribution system (the operating control shall be guarded to reduce the risk of inadvertent or careless operation); and
- stop main engine(s) and auxiliary machinery;

.58 checking if alarm systems are provided which announce at the craft's control position, by visual and audible means, malfunctions or unsafe conditions;

.59 checking if emergency alarms giving indication of conditions requiring immediate action are distinctive and in full view of crew members in the operating compartment, and if they are sensitive to:

- activation of a fire detection system;
- total loss of normal electrical supply;
- overspeed of main engines;
- thermal runaway of any permanently installed nickel-cadmium battery;

.60 checking the operation of alarm systems;

.61 checking the possibility of manual overriding the main propulsion system shut down;

.62 checking if electrical installations, together with main source of power and lighting installations conform to approved documentation; carrying out the load test, coupled work and testing the safety arrangements;

.63 checking if a self-contained and independent source of emergency power is provided sufficient to supply all essential equipment, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5/5.3; carrying out the test of emergency generator and batteries;

.64 examining the main and emergency switchboards, navigational and signalling lamps, battery recharging switchboard, connection of external source of power, group and end switchboards;

.65 checking the operation of transitional source of emergency power for supplying the essential equipment;

.66 checking the operation of electrical drives of equipment as well as control and measuring devices, pumps, compressors for self-elevating devices, windlasses, mooring and towing winches, steering gear, ventilators, watertight doors, doors separating the dangerous zones, dynamic positioning devices, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 4/4.11;

.67 checking if a self-contained and independent transitional source of power is provided to supply all essential for safety equipment, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5/5.3.8;

.68 checking the automatic control of generating sets; checking the safety arrangements on generating sets engines and checking if starting means are satisfactory, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 5/5.3;

.69 checking if cables are properly distributed, having due regard to separation of main and emergency source of power cables;

.70 checking that, in required cases, steering system and stabilization system are powered from two independent sources of power;

.71 checking and testing the main and emergency lighting systems and, where applicable, additional emergency lighting for spaces vital for safety and operation of the drilling unit;

.72 checking if a general alarm system is clearly audible in all parts of the unit and if the minimum sound pressure for the emergency alarm tone is not less than 80 dB(A), in sleeping cabins and in cabin bathrooms not less than 75 dB(A) and it is at least 10 dB(A) above ambient noise levels in normal operational conditions, according to the requirements of *LSA Code*, reg. 7.2;

.73 checking if the public address system gives minimum sound pressure of 75 dB(A) in interior spaces and minimum of 80 dB(A) in exterior spaces, according to the requirements of *LSA Code*, reg. 7.2;

.74 checking if alarm continues to function after it has been triggered until it is manually turned off or is temporarily interrupted by a message on the public address system;

.75 checking if public address system enables broadcasting of messages into all spaces where crew members have access, evacuation routes and muster stations, according to the requirements of *LSA Code*, reg. 7.2;

.76 checking if public spaces, evacuation routes, exits and embarkation stations are clearly and permanently marked and illuminated using the emergency source of power;

.77 checking if at least two, adequately separated, permanently attached metal ladders or stairs are fitted between deck level of the unit and the waterline, and if not, if other means are provided to safely descent from the deck to the water, according to *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapters 10.3.7, 10.3.8; these ladders or stairs shall be adequately illuminated from the emergency source of power;

.78 checking if all exits, together with their means of opening, are adequately marked for the guidance of the crew and of rescue personnel outside the unit;

.79 checking if at least two unobstructed evacuation routes are available for the use of each person, if the evacuation routes are disposed so that adequate evacuation facilities are available in the event of any likely damage or emergency conditions and if an adequate lighting is supplied from the main and emergency sources of power;

.80 carrying out survey in scope of fire fighting equipment and arrangements, as per 19.1.4.107 to 19.1.4.142;

.81 checking if helicopter landing area conforms to requirements of *MODU Code* in the version adopted by resolution A.649(16) with amendments, chapter 9/9.11;

.82 carrying out survey in scope of life saving appliances, as per 19.1.4.143 to 19.1.4.188;

.83 checking the operational readiness of signalling and navigational lamps, shapes and acoustic means of signalling according to *COLREG 1972* with amendments, reg. 20 to 24, 27 to 30 and 33, if applicable;

.84 carrying out survey of radio equipment, as per 19.1.4.189 do 19.1.4.226;

.85 checking if minimal distance is kept between fixed electrical installation and main and steering compasses;

.86 checking the technical condition and operation of magnetic compass, as well as correct reading on repeaters fitted at emergency steering positions, if fitted;

.87 checking the technical condition and operation of gyro-magnetic compass, as well as correct reading on all repeaters;

.88 checking the technical condition and operation of speed and distance measuring device;

.89 checking the technical condition and operation of echo-sounding device and checking range and scale of measuring;

.90 checking the technical condition and operation of radar installation and automatic plotting device, if fitted;

.91 checking the technical condition and operation of electronic position fixing system receiver;

.92 checking the technical condition and operation of rudder angle and rate-of-turn indicators;

.93 checking the technical condition and operation of night-vision equipment, if fitted;

.94 checking the technical condition and operation of automatic steering aid, if fitted;

.95 checking if master decision support system works correctly, if fitted;

.96 checking if means are provided to protect against electric shock and electromagnetic field effect.

19.3.5 Completion of renewal survey shall consist of:

.1 after satisfactory completion of survey, issuing *Mobile Offshore Drilling Unit Safety Certificate*.

20 AUDITS FOR THE SPECIAL PURPOSE SHIP SAFETY CERTIFICATE *(under SPS Code, 2008)*

The scope of surveys for *Special Purpose Ship Safety Certificate* is determined in *Code of Safety for Special Purpose Ships (SPS Code).*

20.1 Initial Surveys

20.1.1 The completion of the initial survey shall consist of:

.1 after a satisfactory result, issuing the *Special Purpose Ship Safety Certificate* and its associated *Record of Equipment*.

20.2 Annual or Periodical Surveys

20.2.1 The completion of the annual or periodical survey shall consist of:

.1 after satisfactory survey, endorsing the *Special Purpose Ship Safety Certificate*;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

20.3 Renewal Surveys

20.3.1 The completion of the renewal survey shall consist of:

.1 after a satisfactory result, issuing the Special Purpose Ship Safety Certificate.

21 SURVEYS FOR THE INTERNATIONAL TONNAGE CERTIFICATE AND THE TONNAGE CERTIFICATE *(under International Convention on Tonnage Measurement of Ships, 1969)*

21.1 Initial Surveys

21.1.1 For tonnage measurement, examination of plans and designs shall consist of:

.1 determining the enclosed spaces in respect of using them in calculating the gross tonnage (hull, structures, deckhouses, coamings, hatches, funnels, companionways, etc.) and the net tonnage (holds, coamings of hatches and hatch covers, other spaces designed to contain or process cargo, like process plants on fishing vessels, cargo tanks, etc.);

.2 identifying the open spaces, not included into gross tonnage calculation (opened niches, stern ramps);

.3 determining the main dimensions;

.4 determining dimensions other than main ones (dimensions of superstructure, holds, coamings, hatches, etc.).

21.1.2 Survey of ship concerning the tonnage measurement shall consist of:

.1 checking if the arrangement of the spaces conforms to the general plan;

.2 measuring the main dimensions, determined from the documentation;

.3 measurements checking the dimensions of the spaces, determined from the documentation;

.4 checking the dimensions that can not be determined on the basis of the documentation.

21.1.3 Completion of the initial survey for tonnage measurements shall consist of:

.1 issuing the International Tonnage Certificate for a ship subjected to *International Convention on Tonnage Measurements, 1969*;

.2 issuing the *Tonnage Certificate* for ship not being subject to *International Convention on Tonnage Measurements, 1969*.

21.2 Additional Surveys

21.2.1 Additional survey is performed on the ship having a valid *Tonnage Certificate*, e.g. in case of change of flag. The objective of this survey is to determine that the main characteristics does not differ from the characteristics entered in *Tonnage Certificate*.

22 GUIDELINES FOR SURVEY FOR CERTIFICATE OF COMPLIANCE WITH CONVENTIONS CONCERNING CREW ACCOMMODATION ON BOARD SHIPS

(under ILO Conventions: C 92 and 133)

22.1 Initial Surveys

22.1.1 For the crew accommodation, the initial inspection shall be performed on every occasion when:

.1 a ship is registered (new construction);

.2 a ship is re-registered (i.e. change of flag);

.3 complaint has been made to the competent authority by a recognized bona fide trade union of seafarers representing all or part of the crew or by prescribed number or proportion of the members of the crew of the ship that the crew accommodation is not in compliance with the terms of the Convention.

22.1.2 For the crew accommodation, the examination of plans shall consist of:

.1 examining the plans for arrangement of the crew accommodation on the ship;

.2 examining the plans of the crew accommodation consisting of:

- plans for every crew accommodation and its assignment;
- arrangement of the furniture and another implements;
- arrangement and kind of ventilation, lighting and heating equipment;
- arrangement of sanitation.

22.1.3 For the crew accommodation, the survey shall confirm that:

.1 the location, means of access, structure and arrangement in relation to other spaces of crew accommodation are such as to ensure adequate security protection against weather and sea, and insulation from heat or cold, undue noise or effluvia from other spaces;

.2 there are no direct openings into sleeping rooms from spaces for cargo and machinery or from boiler rooms, galleys, lamp and paint rooms or from engine, deck and other bulk store rooms, drying rooms, communal wash places or water closets;

.3 external bulkheads of sleeping rooms and mess rooms are adequately insulated;

.4 care is taken to provide protection from heat effects of steam and/or hot-water service pipes;

.5 internal bulkheads are of approved material which is not likely to harbour vermin;

.6 sleeping rooms, mess rooms, recreation rooms and alley-ways in the crew accommodation spaces are adequately insulated to prevent condensation or overheating;

.7 main steam and exhaust pipes for winches and similar gear do not pass through crew accommodation;

.8 where pipes mentioned in .7 pass through crew accommodation they are adequately insulated and enclosed;

.9 inside panelling or sheeting is of material with a surface easily kept clean;

.10 the wall surface and deckheads in sleeping rooms and mess rooms are capable of being easily kept clean and, if painted, are in light colour;

.11 the wall surfaces are renewed or restored as necessary;

.12 the decks in all crew accommodation are of approved material and construction and provide a surface impervious to damp and easily kept clean;

.13 the joining of floorings with sides are rounded to avoid crevices;

.14 sufficient drainage is provided;

.15 sleeping rooms and mess rooms are adequately ventilated and the system of ventilation ensures sufficiency of air movement in all conditions of weather and climate;

.16 ship regularly engaged on voyages in the tropics and the Persian Gulf is equipped with both mechanical means of ventilation and individual electric fans;

.17 ship engaged outside the tropics is equipped with either mechanical means of ventilation or individual electric fans;

.18 power for operation of the aids to ventilation is available at all times when the crew is living or working on board;

.19 an adequate system of heating the crew accommodation is provided, except in ships engaged exclusively in voyages in the tropics and the Persian Gulf;

.20 the heating system is capable (when practicable) to be in operation at all times when the crew is living or working on board;

.21 the heating system is supplied with steam, hot water, warm air or electricity;

.22 where heating is provided by a stove, measures are taken to ensure that the stove is of sufficient size and is properly installed and guarded and that the air is not fouled;

.23 the heating system is capable of maintaining the temperature in crew accommodation at a satisfactory level under normal conditions of weather and climate likely to be met on service;

.24 radiators and other heating apparatus are so placed and, where necessary, shielded as to avoid risk of fire or danger or discomfort to the occupants;

.25 sleeping rooms and mess rooms are properly lighted by natural light and are provided with adequate artificial light;

.26 all crew spaces are adequately lighted;

.27 when it is not possible to provide adequate natural lighting, artificial lighting is provided permitting a person to read a newspaper in any space available for free movement;

.28 electric lights are provided in the crew accommodation;

.29 if there are not two independent sources of electricity for lighting, additional lighting is provided by properly constructed lamps or lighting apparatus for emergency use;

.30 artificial lighting is so disposed as to give the maximum benefit to the occupants of the room;

.31 in sleeping rooms an electric reading lamp is installed at the head of each berth;

.32 sleeping rooms are situated above the load line amidships or aft;

.33 in exceptional cases, sleeping rooms are located in the fore part of the ship, but in no case forward of the collision bulkhead;

.34 in passenger ship, if the competent authority so permits, on condition that satisfactory arrangement are made for lighting and ventilation, sleeping rooms are located below the load line, but in no case immediately beneath working alley-ways;

.35 the floor area per person of sleeping rooms intended for ratings is not less than:

- 1.85 sq. m in vessel under 800 gross tonnage;
- 2.35 sq. m in vessel of 800 gross tonnage or over, but under 3000 gross tonnage;
- 2.78 sq. m in vessel of 3 000 gross tonnage or over;
- 2.22 sq. m in passenger ship in which more than four ratings are berthed in one room;

.36 in the case of ship in which the number of ratings employed is larger than otherwise would be, the minimum floor area of sleeping rooms is not less than:

- 1.67 sq. m per person in ships under 3000 gross tonnage;
- 1.85 sq. m per person in ships of 3000 gross tonnage or over;

.37 the clear head room in crew sleeping rooms is not less than 1.90 m;

.38 there is a sufficient number of sleeping rooms to provide a separate room or rooms for each department;

.39 the number of persons allowed to occupy sleeping rooms does not exceed the following maxima:

- 1 person per room – officers in charge of a department, navigating and engineer officers in charge of a watch and senior radio officers or operators;
- 1 person per room wherever possible and in no case more than 2 persons – other officers;
- 1 or 2 persons per room – petty officers;
- 2 or 3 persons per room and in no case more than 4 in passenger vessels – other ratings;
- 10 persons per room – ratings in the case of certain passenger ships, after consultation with the organizations of shipowners, the bona fide trade unions of seafarers and the Flag Administration;

.40 the maximum number of persons to be accommodated in any sleeping room is indelibly and legibly marked in some place in the room where it can conveniently be seen;
.41 members of the crew are provided with individual berths;
.42 berths are not placed side by side in such way that access to one berth can be obtained only over another;
.43 berths are not arranged in tiers of more than two;
.44 in the case of berths placed along the ship's side, there is only a single tier where a sidelight is situated above a berth;
.45 the lower berth in a double tier is not less than 0.30 m above the floor; the upper berth is placed approximately midway between the bottom of the lower berth and the lower side of the deckhead beams;
.46 the minimum inside dimensions of a berth are 1.90 m by 0.68 m;
.47 the framework and the lee-board, if any, of a berth are of approved material, hard, smooth and not likely to corrode and resistant to harbour vermin;
.48 tubular frames used for the construction of berth are completely sealed and without perforations which would give access to vermin;
.49 each berth is fitted with a spring bottom or a spring mattress and with a mattress of approved material;
.50 when one berth is placed over another, a dust-proof bottom of wood, canvas or other suitable material is fitted beneath the spring bottom of the upper berth;
.51 sleeping rooms are so planned and equipped as to ensure reasonable comfort for the occupants and to facilitate tidiness;
.52 the furniture includes a clothes locker for each occupant. The clothes lockers are not less than 1.52 m in height and of a cross-section area of 0.193 m2 and are fitted with a shelf and a hasp for a padlock;
.53 each sleeping room is provided with a table or desk, which may be of the fixed, dropleaf or slide-out type, and with comfortable seating accommodation as necessary;
.54 the furniture is of smooth, hard material not liable to warp or corrosion;
.55 the drawer or equivalent space for each occupant is not less than 0.056 m3;
.56 sleeping rooms are fitted with curtains for the sidelights;
.57 sleeping rooms are fitted with a mirror, small cabinets for toilet requisites, a book rack and a sufficient number of coat hooks;
.58 berthing of crew members are so arranged that watches are separated and that no daymen share a room with watch-keepers;
.59 in ships of less than 1000 gross tonnage, separate mess room accommodation is provided for masters and officers and separate for petty officers and other ratings;
.60 in ships of 1000 gross tonnage and over, separate mess room accommodation is provided for masters and officers, separate for deck department petty officers and other ratings, and separate for engine department petty officers and other ratings;
.61 adequate mess room accommodation shall be provided for the catering department, either by the provision of a separate mess room or by giving them the right to the use of the mess rooms assigned to other groups;
.62 in the case of ships of 5000 gross tonnage or over with more than five persons in the catering department there is a separate mess room provided for catering department;
.63 the dimensions and equipment of each mess room are sufficient for the number of persons likely to use it at any time;
.64 mess rooms are equipped with tables and approved seats sufficient for the number of persons likely to use it any one time;
.65 mess rooms are located apart from the sleeping rooms and as close as practicable to the galley;
.66 where available pantries are not accessible from mess rooms, adequate lockers for mess utensils and proper facilities for washing utensils are provided;
.67 the tops of tables and seats are of damp-resisting material, without cracks and capable of being easily cleaned;

.68 spaces to which the crew can have access when off duty are provided on an open deck; the space or spaces are of adequate area, having regard to the size of the ship and the crew;

.69 recreation accommodation, conveniently situated and appropriately furnished is provided for officers and for ratings. Where this is not provided separately from the mess rooms, the latter are planned, furnished, and equipped to give recreational facilities;

.70 sufficient sanitary accommodation, including wash basins and tub and/or shower bath are provided;

.71 the following minimum number of separate water closets are provided:
- in ships of under 800 gross tonnage: three;
- in ships of 800 gross tonnage or over, but under 3000 gross tonnage: four;
- in ships of 3000 tons or over: six;

.72 in ships where the radio officers or operators are accommodated in an isolated position, sanitary facilities near or adjacent thereto are provided;

.73 sanitary facilities for all members of the crew who do not occupy rooms to which private facilities are attached are provided for each group of the crew on the following scale:
- one tub or shower bath for every eight persons or less;
- one water closet for every eight persons or less;
- one wash basin for every six persons or less;

.74 when the total number of the crew exceeds 100 and in passenger vessel normally engaged on voyages of not more than four hours' duration, reduction in the number of required sanitary facilities has been done by the competent authority;

.75 cold fresh water and hot fresh water or means of heating water are available in all communal wash places;

.76 wash basins and tub baths are of adequate size and constructed of approved material with a smooth surface not liable to crack, flake or corrosion;

.77 all water closets have ventilation to the open air, independently of any other part of the accommodation;

.78 all water closets are of an approved type and provided with an ample flush of water, available at all times and independently controllable;

.79 soil pipes and waste pipes are of adequate dimensions and are so constructed as to minimize the risk of obstruction and to facilitate cleaning;

.80 sanitary accommodation intended for the use of more than one person fulfils the following requirements:
- floors are of approved durable material, easily cleaned and impervious to damp, and are properly drained;
- bulkheads are of steel or other approved material and are watertight up to at least 0.23 m above the level of the deck;
- the accommodation is sufficiently lighted, heated and ventilated;
- water closets are situated convenient to, but separate from, sleeping rooms and wash rooms, without direct access from sleeping rooms or from passage between sleeping rooms and water closets to which there is no other access. This requirement does not apply where a water closet is located in a compartment between two sleeping rooms having a total of not more than four persons;
- where there is more than one water closet in a compartment they are sufficiently screened to ensure privacy;

.81 the facilities for washing clothes include suitable sinks, which may be installed in wash rooms, if separate laundry accommodation is not reasonable practicable, with an adequate supply of cold fresh water and hot fresh water and sewage discharge;

.82 the facilities for drying clothes are provided in a compartment separate from sleeping rooms and mess rooms, adequately ventilated and heated and equipped with lines or other fittings for hanging clothes;

.83 in a ship carrying a crew of fifteen or more and engaged in a voyage of more than three days' duration, separate hospital accommodation is provided;

.84 the hospital accommodation is suitably situated, so that it is easy of access and so that the occupants may be comfortably housed and may receive proper attention in all weather conditions;

.85 the arrangement of the entrance, berths, lighting, ventilation, heating and water supply of hospital accommodation is designed to ensure the comfort and facilitate the treatment of the occupants;

.86 water closet accommodation is provided for the exclusive use of the occupants of the hospital accommodation, either as part of the accommodation or in close proximity thereto;

.87 an approved medicine chest with readily understandable instructions is carried in the ship which does not carry a doctor;

.88 sufficiently and adequately ventilated accommodation for the hanging of oilskins is provided outside but convenient to the sleeping rooms;

.89 in ships over 3000 gross tonnage, one room for the deck department and one room for the engine department is provided and equipped for use as an office;

.90 in ships regularly trading to mosquito-infested ports provision is made to protect the crews' quarters against the admission of mosquitoes by the fitting of suitable screens to side scuttles, ventilators and doors to the open deck;

.91 if a ship is trading regularly to or in the tropics and the Persian Gulf, it is equipped with awnings for use over exposed decks or above crew accommodation and over recreation deck space or spaces;

Additional requirements for ships constructed on or after 27 August 1991:

.92 the floor area per person of sleeping rooms intended for ratings is not less than:
- 3.75 sq. m in ship of 1000 gross tonnage or over but less than 3000;
- 4.25 sq. m in ship of 3000 gross tonnage or over but less than 10 000;
- 4.75 sq. m in ship of 10 000 gross tonnage or over;

.93 the floor area per person of sleeping rooms intended for two ratings is not less than:
- 2.75 sq. m in ship of 1000 gross tonnage or over but less than 3000;
- 3.25 sq. m in ship of 3000 gross tonnage or over but less than 10 000;
- 3.75 sq. m in ship of 10 000 gross tonnage or over;

.94 the floor area of sleeping rooms intended for ratings in passenger ship is not less than:
- 2.35 sq. m per person in ship of 1000 gross tonnage or over but less than 3000;
- in ship of 3000 gross tonnage or over:
  3.75 sq. m in rooms accommodating one person;
  6.00 sq. m in rooms accommodating two persons;
  9.00 sq. m in rooms accommodating three persons;
  12.00 sq. m in rooms accommodating four persons;

.95 the number of ratings occupying sleeping rooms does not exceed two persons per room, except in passenger ship where the maximum number permissible is four;

.96 the number of petty officers occupying sleeping rooms does not exceed one or two persons per room;

.97 in sleeping rooms for officers, where no private sitting room or day room is provided, the floor area per person is not less than 6.50 sq. m in ship of less than 3000 gross tonnage, and is not less than 7.50 sq. m in ships of 3000 gross tonnage or over;

.98 in ship other than passenger ship an individual sleeping room is provided for each adult member of the crew, where the size of the ship, the activity in which it is to be engaged, and its layout make this reasonable and practicable;

.99 in ship of 3000 gross tonnage or over, the chief engineer officer and the chief navigating officer have, in addition to their sleeping room, an adjoining sitting room or day room;

.100 the minimum inside dimensions of a berth are 1.98 m by 0.80 m;

.101 the floor area of mess rooms for officers and for ratings is not less than 1 sq. m per person of the planned seating capacity;

.102 mess rooms are equipped with tables and approved seats, fixed or movable, sufficient to accommodate the greatest number of members of the crew likely to use them at any one time;

.103 there is available at all times when members of the crew are on board:

- a refrigerator, which is conveniently situated, of sufficient capacity for the number of persons using the mess room or mess rooms;
- facilities for hot beverages; and
- cool water facilities;

.104 recreation accommodation, conveniently situated and appropriately furnished is provided for officers and for ratings. Furnishing for recreation accommodation includes a bookcase and facilities for reading, writing and for games;

.105 in ship of 8000 gross tonnage or over, a smoking room or library room in which films or television may be shown and hobby and games room are provided;

.106 in a ship there are a minimum of one water closet and one tub or shower bath for every six persons or less who do not have facilities provided at a convenient location for officers and for ratings;

.107 when women are employed in a ship, separate sanitary facilities are provided for them;

.108 in ship of 5000 gross tonnage or over but less than 15 000 gross tonnage, individual sleeping rooms for at least five officers have attached to them a separate private bathroom fitted with a water closet as well as a tub or shower bath and a wash basin having hot and cold running fresh water;

.109 in ship of 10 000 gross tonnage or over but less than 15 000 gross tonnage, the sleeping rooms of all officers have private or intercommunicating bathrooms similarly fitted;

.110 in ship of 15 000 gross tonnage or over, individual sleeping rooms for officers have attached to them a separate private bathroom fitted with a water closet as well as a tub or shower bath and a wash basin having hot and cold running fresh water. The wash basin may be situated in the sleeping room;

.111 in ship of 25000 gross tonnage or over, other than passenger ships, a bathroom for every two ratings is provided, either in an intercommunicating compartment between adjoining sleeping rooms or opposite the entrance of such rooms, which is fitted with a water closet as well as a tub or shower bath and a wash basin having hot and cold running fresh water;

.112 in ship of 5000 gross tonnage or over, other than passenger ship, sleeping room whether for officers or ratings, is provided with a wash basin having hot and cold running fresh water, except where such wash basin is situated in a bathroom provided in conformity with .109, .110, .111 or .112;

.113 in ship there are facilities for washing, drying and ironing clothes provided for officers and ratings on a scale appropriate to the size of the crew and the normal duration of the voyage. These facilities are located within easy access of their accommodation; The facilities are as follows:
- washing machines;
- drying machines or adequately heated and ventilated drying rooms; and
- iron and ironing boards or their equivalent;

.114 in ship of 1600 gross tonnage or over, there are provided:
- a separate compartment containing a water closet and a water basin having hot and cold running fresh water, within easy access of the navigating bridge deck primarily for those on duty in the area; and
- a water closet and a wash basins having hot and cold running fresh water, within easy access of the machinery space if not fitted near the engine room control centre;

.115 in ship of 1600 gross tonnage or over, other than ship in which private sleeping rooms and private or semi-private bathrooms are provided for all engine department personnel, facilities for changing clothes are provided which are:
- located outside the machinery space but with easy access to it; and
- fitted with individual clothes lockers as well as with tubs or shower baths and wash basins having hot and cold running fresh water;

.116 the minimum headroom in all crew accommodation where full and free movement is necessary is not less than 1.98 m.

22.1.4 The completion of the survey shall consist of:

.1 after satisfactory survey, issuing the *Certificate of Compliance*.

23 SURVEYS FOR THE MARITIME LABOUR CERTIFICATE
(under ILO MLC 2006 Convention)

Surveys for assuring that the working and living conditions onboard the ship fully comply with all relevant national laws and regulations and collective bargaining agreements shall be made in the scope determined in *MLC 2006 Convention.*

23.1 Interim Surveys

23.1.1 The survey for issue of interim document is performed:

.1 for a ship without a certificate, being under delivery or before its entering or re-entering into operation;

.2 for a ship changing the flag;

.3 when shipowner assumes the responsibility for the operation of a ship which is new to that shipowner.

23.1.2 The completion of the initial survey shall consist of:

.1 after a satisfactory result, issuing the *Interim Maritime Labour Certificate*.

23.2 Initial Surveys

23.2.1 The completion of the initial survey shall consist of:

.1 after a satisfactory result, issuing the *Maritime Labour Certificate (MLC);*

.2 the issue of a MLC is subject to existence of a valid *Declaration of Maritime Labour Compliance (DMLC)* for the ship subject to certification.

23.3 Intermediate Surveys

23.3.1 The completion of the intermediate audit shall consist of:

.1 after a satisfactory result, endorsing the *Maritime Labour Certificate (MLC).*

23.4 Renewal Surveys

23.4.1 The completion of the renewal audit shall consist of:

.1 after a satisfactory result, issuing the *Maritime Labour Certificate (MLC);*

.2 the issue of a *MLC* is subject to existence of a valid *Declaration of Maritime Labour Compliance (DMLC)* for the ship subject to certification.

24 SURVEYS FOR ISSUING THE REGISTER OF SHIP'S LIFTING APPLIANCES
(under ILO No. 152 Convention and Rules for Statutory Survey of Sea-going Ships, Part VI – Lifting Devices)

24.1 Initial Surveys

24.1.1 Survey of lifting devices documentation to be carried on board shall consist of:

.1 checking the plan for positioning of the lifting appliances and their specifications;

.2 checking plan of crane devices fastening to the deck;

.3 checking drawings of fastening of booms and crane gantries in the stowed condition;

.4 checking the certificates of lifting devices and equipment;

.5 testing after installation of lifting devices onboard.

24.1.2 Survey of the lifting equipment and devices after installation on board shall consist of:

.1 checking if supporting construction of a device is not damaged or deformed;

.2 checking if all mechanisms are appropriately fitted and with no damages;

.3 checking if wires are not damaged and their strands are not broken or flattened;

.4 checking if rope sheaves are fitted with protections against falling the rope out off the sheave's groove;

.5 carrying out the light and on-load tests to confirm that:
- devices are working without vibration and noise;
- propelled constructional parts are moving smoothly, without vibration and jamming;
- lifting mechanism brake stops the load smoothly, with no jerks and holds the load;
- the outrigger brake stops the arm smoothly and with no jerks and holds it at any position of arm;
- the brake stops the swing of the arm smoothly, with no jerks;
- ropes are going through the sheaves without tendency to fall out and line up properly on the drum.

.6 examining the device after tests to check that:
- supporting construction is not damaged or deformed;
- mechanisms are not damaged and work properly.

24.1.3 The completion of the initial survey of the lifting devices in ship:

.1 after satisfactory completion of survey, Certificate of Test and Thorough Examination of Lifting Appliances and Register of Ship's Lifting Appliances shall be issued.

24.2 Annual Surveys

24.2.1 Annual survey of documentation shall consist of:

.1 checking the entries in *Register of Ship's Lifting Appliances* and validity dates of the related following certificates:
- *Certificate of Test and Thorough Examination of Lifting Appliances*;
- *Certificate of Test and Thorough Examination of Boom Derricks Used for Coupled Work* (if applicable);
- *Certificate of Test and Thorough Examination of Interchangeable Components and Loose Gear*;
- *Certificate of Test and Thorough Examination of Wire Rope*.

24.2.2 Annual survey of lifting devices installed on board shall consist of:

.1 thorough examination of supporting construction of a device to check if it is not damaged or deformed;

.2 dismounting and measurements of couplings, if necessary, to check if clearances are not exceeded and if there is no need of changing the bolts;

.3 examining the load-bearing elements, such as shackles, hooks, swivels, etc., to check if they are not worn unacceptably;

.4 examining the condition of running wires;

.5 checking the operation of the moving mechanisms without load;

.6 checking the operation of safety devices.

24.2.3 The completion of the annual survey of lifting devices shall consist of:

.1 after satisfactory completion of survey, making appropriate entries in the *Register of Ship's Lifting Appliances*;

.2 if survey is not satisfactory, referring to 1.4.8 of *Part I – Survey Regulations.*

24.3 Renewal Surveys

24.3.1 Survey of documentation shall consist of:

.1 checking the entries in *Register of Ship's Lifting Appliances* and validity dates of the related following certificates:
- *Certificate of Test and Thorough Examination of Lifting Appliances*;
- *Certificate of Test and Thorough Examination of Boom Derricks Used for Coupled Work* (if applicable);
- *Certificate of Test and Thorough Examination of Interchangeable Components and Loose Gear*;
- *Certificate of Test and Thorough Examination of Wire Rope*.

24.3.2 Renewal survey of lifting devices installed on board shall consist of:

.1 thorough examination of supporting construction of a device to check if it is not damaged, deformed or corroded to an unacceptable degree;

.2 thorough examination of mechanisms to check if they are not damaged;

.3 checking, without load, if moving mechanisms operate properly, with no vibration and if brakes are efficient;

.4 checking the operation of all safety switches;

.5 carrying out the on-load tests to check if supporting construction and mechanisms are safe to use, brakes are efficient and work smoothly and without jerks and that they hold the load;

.6 examining the device after tests to check that supporting construction is not damaged or deformed.

24.3.3 The completion of the renewal survey of lifting devices shall consist of:

.1 after satisfactory completion of survey, issuing Certificate of Test and Thorough Examination of Lifting Appliances and making appropriate entries in the Register of Ship's Lifting Appliances.

25 SURVEYS FOR DOCUMENTATION OF FISHING GEAR

(under Rules for Statutory Survey of Sea-going Ships, Part VII – Fishing Gear)

25.1 Initial Surveys

25.1.1 Survey of documentation related to installed fishing gear and equipment shall consist of:

.1 checking the plan for positioning of fishing gear and equipment and their characteristics and working specifications;

.2 checking the drawings of the equipment and characteristics of the winches, supporting construction and wire ropes;

.3 checking the drawing of supporting construction and securing equipment and elements;

.4 checking the schedule of tests.

25.1.2 Survey of fishing gear and equipment after their installation onboard the ship shall consist of:

.1 checking if wire drag winches are fitted on their foundations in accordance with a documentation approved by BCS;

.2 examining the wire drag winches for any external damages;

.3 checking if trawl winches are fitted on their foundations in accordance with a documentation approved by BCS;

.4 examining the trawl winches for any external damages;

.5 checking if all blocks on gantry crane and deck, beams or towers are of Safety Working Load (SWL) as per documentation approved by BCS and if they are installed in positions as in documentation approved by BCS;

.6 checking if the gantry crane, all brackets and trawl tower are in satisfactory condition and are not deformed;

.7 working tests of trawl winches and wire drag winches to check if they are installed properly and work smoothly, with no vibration and noise, if the wires line up properly on the drum and all safety devices work properly;

.8 overload tests of fishing gear winches to check if they are fitted firmly to their foundations and work without vibration as well as if brakes are efficient, stop the load without jerks, hold the load and if the wires line up properly on the drum;

.9 complete examination of all fishing equipment, performed after the tests, to check if supporting construction is not damaged or deformed and if all winches and their brakes work properly, if trawl gantry cranes and trawl towers are not damaged or deformed and ensure safe operation.

25.1.3 The completion of the initial survey shall consist of:

.1 after satisfactory completion of the survey, issuing *Certificate of Test and Examination of Fishing Gear* and *Record of Maintenance of Fishing Gear* and, entering appropriate records therein.

25.2 Annual Surveys

25.2.1 Survey of documentation to be carried on board shall consist of:

.1 Record of Maintenance of Fishing Gear;
.2 *Certificate of Test and Examination of Fishing Gear;*
.3 *Test and Examination Certificate of Fishing Equipment;*
.4 *Test Certificate of Wire.*

25.2.2 Annual survey of fishing gear and equipment shall consist of:

.1 complete examination, supplied by measurements if needed, of fishing gear support construction, such as trawl gantry-crane, trawl towers and winches foundations, block fittings and checking if supporting construction is not damaged or deformed and wear of rotating elements, as well as corrosion diminution, are within acceptable limits;
.2 complete examination of trawl ropes or wires and ropes or wires used for trawl recovery to check if they are not worn in an unacceptable degree and if the wire is not flattened or rope strand is not fractured or extensively worn;
.3 examination and tests of fishing gear winches to check if their technical condition is satisfactory, mechanisms work with no vibration and if brakes are efficient;
.4 checking the operation of safety devices fitted on fishing gear and equipment, such as overload protection mechanism, indication of length of wire paid off, indication of load on the trawl, limit switches and blockings.

25.2.3 The completion of annual survey of fishing gear and equipment shall consist of:

.1 after satisfactory completion of survey, making appropriate entries in the *Record of Maintenance of Fishing Gear*;
.2 if survey is unsatisfactory, reference to 1.4.8 of *Part I – Survey Regulations.*

25.3 Renewal Surveys

25.3.1 Survey of documentation to be performed board shall cover:

.1 Record of Maintenance of Fishing Gear;
.2 *Certificate of Test and Examination of Fishing Gear;*
.3 *Test and Examination Certificate of Fishing Equipment;*
.4 *Test Certificate of Wire.*

25.3.2 Renewal survey of fishing gear and equipment shall consist of:

.1 complete examination of fishing gear winches and their foundations, trawl gantry-crane, trawl towers and equipment to check if the winches are not damaged, gantry cranes, towers and lashing equipment to check if they are not damaged, deformed or fractured and corrosion diminutions are within acceptable limits;
.2 complete examination of trawl ropes or wires and ropes or wires used for trawl recovery to check if they are not worn in an unacceptable degree and if the wire is not flattened or rope strand is not fractured or extensively worn;
.3 examination and motion tests of fishing gear winches to check if their technical condition is satisfactory, mechanisms work with no vibration and if brakes are efficient;
.4 checking the efficiency and operation of safety devices.

25.3.3 The completion of the renewal survey shall consist of:

.1 after satisfactory completion of a survey, entering appropriate records in *Record of Maintenance of Fishing Gear*.

26 ENHANCED SURVEYS OF BULK CARRIERS AND TANKERS

(under ESP Code, res.A.1049(27)), AS AMENDED

26.1 Enhanced survey programme of bulk carriers, depending on their structural configuration, is contained in:

– *BCS-R Z10.2 – Hull Surveys of Bulk Carriers*;
– BCS-R Z10.5– *Hull Surveys of Double Skin Bulk Carriers.*

26.2 Enhanced survey programme of tankers, depending on their structural configuration and designation, is contained in:
– BCS-R Z10.1 – *Hull Surveys of Oil Tankers*;
– BCS-R Z10.3 – *Hull Surveys of Chemical Tankers*;
– BCS-R Z10.4 – *Hull Surveys of Double Hull Oil Tankers.*

26.3 Enhanced survey programme of general dry cargo ships, depending on their structural configuration, is contained in BCS-R27.1 – *Hull Surveys of General Dry Cargo Ships.*

27 APPRAISAL OF HULL OF OIL TANKERS *(under res. MEPC.94(46) with amendments)*

27.1 The programme of hull survey of oil tankers is contained in:
– BCS-R Z10.1 – *Hull Surveys of Oil Tankers*;
– BCS-R Z10.4– *Hull Surveys of Double Hull Oil Tankers*.

28 AUDITS FOR THE SAFETY MANAGEMENT CERTIFICATE AND THE DOCUMENT OF COMPLIANCE *(under ISM Code)*

Audits for safety operation of ships and for pollution prevention shall be performed in the scope determined in *ISM Code* with amendments.

28.1 Interim Documents

28.1.1 Audit at Company's Office is performed to facilitate implementation of ISM Code:
.1 for a newly established Company, or
.2 when the Company wishes to add a new type of ship to the existing DOC;
.3 when the Company's structure has been modified.

28.1.2 Audit onboard the ship is performed:
.1 for a new ship at the time of its delivery;
.2 when the Company takes on responsibility for the management of a new type of ship (not operated by the Company before), or
.3 when the ship changes flag.

28.2 Initial Audits at the Company's Office/on Board Ship

28.2.1 After the validity expiry of Interim Certificate issued based on one of the above audits, the initial audit shall be performed.

28.2.2 The completion of the initial audit shall consist of:

.1 after a satisfactory result, issuing the *Document of Compliance (DOC)* for Company;

.2 after a satisfactory result, issuing the *Safety Management* Certificate *(SMC)* for a ship;

.3 the issue of a SMC is conditional upon:

- existence of a valid full-term *DOC* for the given type of ship;
- maintenance of compliance with the requirements of a Classification Society.

28.3 Annual Audits at the Company's Office

28.3.1 The completion of the annual audit shall consist of:

.1 after a satisfactory survey, endorsing the *Document of* Compliance *(DOC).*

28.4 Intermediate audits on Board Ship

28.4.1 The completion of the intermediate audit shall consist of:

.1 after a satisfactory result, endorsing the *Safety* Management *Certificate (SMC)*

28.5 Renewal Audits at the Company's Office/on Board Ship

28.5.1 The completion of the renewal audit shall consist of:

.1 after a satisfactory result, issuing the Document *of Compliance (DOC)* for Company;

.2 after a satisfactory result, issuing the Safety *Management Certificate (SMC)* for a ship.

29 AUDITS FOR THE INTERNATIONAL SHIP SECURITY CERTIFICATE *(under ISPS Code)*

The scope of audits for security of ships is determined in *ISPS Code*.

29.1 Audits for Issue of *Interim International Ship Security Certificate (ISSC)*

29.1.1 The audit for issue of interim document is performed:

.1 for a ship without a certificate, being under delivery or before its entering or re-entering into operation;

.2 for a ship changing the flag;

.3 when the Company has taken over the responsibility for operation of a ship previously not operated by the Company.

29.2 Initial Audits

29.2.1 After the validity expiry of Interim Certificate, the initial audit shall be performed.

29.2.2 The completion of the initial audit shall consist of:

.1 after a satisfactory result, issuing the International Ship Security Certificate (ISSC).

29.3 Intermediate Audits

29.3.1 The completion of the intermediate audit shall consist of:

.1 after a satisfactory result, endorsing the International Ship Security Certificate (ISSC).

29.4 Renewal Audits

29.4.1 The completion of the renewal audit shall consist of:

.1 after a satisfactory result, issuing the International Ship Security Certificate (ISSC).

30 SURVEYS FOR THE POLAR SHIP CERTIFICATE ADDITIONAL TO SOLAS CERTIFICATES *(under res. A.1140(31))*

30.1 Initial Surveys

30.1.1 For compliance with part I-A of the *International Code for Ships Operating in Polar Waters* the examination of plans and designs of the hull, machinery and equipment is described in Annex 4, Ch. 3.1 of res. A.1140(31).

The completion of the initial survey shall consist of:

.1 after a satisfactory survey, issuing the Polar Ship Certificate and its associated Record of Equipment.

30.2 Annual Surveys

30.2.1 For compliance with part I-A of the *International Code for Ships Operating in Polar Waters*, the scope of examination is described in Annex 4, Ch. 3.2 of res. A.1140(31).

30.2.2 The completion of the annual survey shall consist of:

.1 after a satisfactory survey, endorsing the *Polar Ship Certificate;*

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory – see 1.4.8 in *Part I – Survey Regulations.*

30.3 Intermediate Surveys

30.3.1 For compliance with part I-A of the *International Code for Ships Operating in Polar Waters*, the scope of examination is described in Annex 4, Ch. 3.3 of res. A.1140(31).

30.3.2 The completion of the intermediate survey shall consist of:

.1 after a satisfactory survey, endorsing the *Polar Ship Certificate;*

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory – see 1.4.8 in *Part I – Survey Regulations.*

30.4 Periodical Surveys

30.4.1 For compliance with part I-A of the *International Code for Ships Operating in Polar Waters*, the scope of examination is described in Annex 4, Ch. 3.4 of res. A.1140(31).

30.4.2 The completion of the periodical survey shall consist of:

.1 after a satisfactory survey, endorsing the *Polar Ship Certificate*;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory – see 1.4.8 in *Part I – Survey Regulations*.

30.5 Renewal Surveys

30.5.1 For compliance with part I-A of the *International Code for Ships Operating in Polar Waters*, the scope of examination is described in Annex 4, Ch. 3.5 of res. A.1140(31).

30.5.2 The completion of the renewal survey shall consist of:

.1 after a satisfactory survey, issuing the *polar ship certificate*

31 SURVEYS FOR THE INTERNATIONAL BALLAST WATER MANAGEMENT CERIFICATE *(under res. A.1140(31))*

31.1 Initial Surveys

31.1.1 For the control and management of ships' ballast water and sediments, the scope of examination is described in o Annex 4, Ch. 1.1 of res. A.1140(31).

31.1.2 The completion of initial survey for the control and management of ships' ballast water sediments shall consist of:

.1 after satisfactory survey, issuance of the International Ballast Water Management Certificate

31.2 Annual Surveys

31.2.1 For the control and management of ships' ballast water and sediments, the scope of examination is described in o Annex 4, Ch. 1.2 of res. A.1140(31).

31.2.2 The completion of the annual survey shall consist of:

.1 after satisfactory survey, issuance of the International Ballast Water Management Certificate;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

31.3 Intermediate Surveys

31.3.1 For the control and management of ships' ballast water and sediments, the scope of examination is described in o Annex 4, Ch. 1.3 of res. A.1140(31).

31.3.2 The completion of the intermediate survey shall consist of:

.1 after satisfactory survey, issuance of the International Ballast Water Management Certificate;

.2 if a survey shows that the condition of a ship or its equipment is unsatisfactory, see 1.4.8 in *Part I – Survey Regulations*.

31.4 Renewal Surveys

31.4.1 For the control and management of ships' ballast water and sediments, the scope of examination is described in o Annex 4, Ch. 1.4 of res. A.1140(31).

31.4.2 The completion of initial survey for the control and management of ships' ballast water sediments shall consist of:

.1 after satisfactory survey, issuance of the International Ballast Water Management Certificate.

Appendix No. 1

DIAGRAMMATIC ARRANGEMENT

Years	0	1	2	3	4	5
Months	0	**9** 12 **15**	**21** 24 **27**	**33** 36 **39**	**45** 48 **51**	**57 60**
SOLAS – passenger		← R →	← R →	← R →	← R →	← R →
SOLAS – SEC		← A →	← A/P →	← P/A →	← A →	← R→
SOLAS – SAFCON		← A →	← A/In→	← In/A→	← A →	← R→
SOLAS – RADIO		← P →	← P →	← P →	← P →	← R→
IGC/GC		← A →	←A/In→	← In/A→	← A →	← R→
IBC/BCH		← A →	←A/In→	← In/A→	← A →	← R→
HSC		← P →	← P →	← P →	← P →	← R→
LOAD LINE		← A →	← A →	← A →	← A →	← R→
MARPOL Annex I		← A →	←A/In→	← In/A→	← A →	← R→
MARPOL Annex II		← A →	←A/In→	← In/A→	← A →	← R→
MARPOL Annex IV		← A →	←A/In→	← In/A→	← A →	← R→
MARPOL Annex V		← R →	← R →	← R →	← R →	← R→
MARPOL Annex VI		← A →	←A/In→	← In/A→	← A →	← R→
BWM		← A →	←A/In→	← In/A→	← A →	← R→

CLASS← A →←A/IN→ ← IN/A→← A →← R→

Code of types of survey:

I – Initial
R – Renewal
P – Periodical
In – Intermediate
A – Annual

* The renewal survey for the issue of the *Cargo Ship Construction Certificate* may commence during the fourth annual survey and may last for the period of the following year, but it has to be complete before the day of the fifth anniversary. The scope of survey activities within the fourth annual survey shall not be included in the scope of the renewal survey activities.