Rules for the Classification of Yachts

Effective from 1 January 2025

Part A

Classification and Surveys

www.tasneefmaritime.ae

+971 2 6922333 +971 2 4454333 info@tasneef.ae 111155, Abu Dhabi, UAE

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MARITIME

GENERAL CONDITIONS

Definitions:

Administration" means the Government of the State whose flag the ship is entitled to fly or under whose authority the ship is authorized to operate in the specific case.

"**IACS**" means the International Association of Classification Societies.

"Interested Party" means the party, other than the Society, having an interest in or responsibility for the Ship, product, plant or system subject to classification or certification (such as the owner of the Ship and his representatives, the shipbuilder, the engine builder or the supplier of parts to be tested) who requests the Services or on whose behalf the Services are requested.

"**Owner**" means the registered owner, the shipowner, the manager or any other party with the responsibility, legally or contractually, to keep the ship seaworthy or in service, having particular regard to the provisions relating to the maintenance of class laid down in Part A, Chapter 2 of the Rules for the Classification of Ships or in the corresponding rules indicated in the Specific Rules.

"**Rules**" in these General Conditions means the documents below issued by the Society:

(i) Rules for the Classification of Ships or other special units.
(ii) Complementary Rules containing the requirements for product, plant, system and other certification or containing the requirements for the assignment of additional class notations;
(iii) Rules for the application of statutory rules, containing the rules to perform the duties delegated by Administrations.
(iv) Guides to carry out particular activities connected with Services;
(v) Any other technical document, for example, rule variations or interpretations.

"Services" means the activities described in paragraph 1 below, rendered by the Society upon request made by or on behalf of the Interested Party.

"**Ship**" means ships, boats, craft and other special units, for example, offshore structures, floating units and underwater craft.

"Society" or "TASNEEF" means TASNEEF Maritime

"**Surveyor**" means technical staff acting on behalf of the Society in performing the Services.

"**Force Majeure**" means damage to the ship; unforeseen inability of the Society to attend the ship due to government restrictions on right of access or movement of personnel; unforeseeable delays in port or inability to discharge cargo due to unusually lengthy periods of severe weather, strikes or civil strife; acts of war; or other force majeure.

1. Society Roles

1.1. The purpose of the Society is, among others, the classification and certification of ships and the certification of their parts and components. In particular, the Society:
(i) sets forth and develops Rules.
(ii) publishes the Register of Ships.
(iii) Issues certificates, statements and reports based on its survey activities.
1.2. The Society also takes part in the implementation of national and international rules and standards as delegated by various Governments.
1.3. The Society carries out technical assistance activities on request and provides special services outside the scope of classification, which is regulated by these general conditions unless expressly excluded in the particular contract.

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2. Rule Development, Implementation and Selection of Surveyor

2.1. The Rules developed by the Society reflect the level of its technical knowledge at the time they are published therefore, the Society, although also committed through its research and development services to continuous updating of the Rules, does not guarantee the Rules meet state-of-the-art science and technology at the time of publication or that they meet the Society's or others' subsequent technical developments.
2.2. The Interested Party is required to know the Rules based on which the Services are provided. With particular reference to Classification Services, special attention is to be given to the Rules concerning class suspension, withdrawal and reinstatement. In case of doubt or inaccuracy, the Interested Party is to promptly contact the Society for clarification.
The Rules for Classification of Ships are published on the Society's website: www.tasneef.ae.
2.3. Society exercises due care and skill:
(i) In the selection of its Surveyors
(ii)In the performance of its Services, taking into account the level of its technical knowledge at the time the Services are performed.
2.4. Surveys conducted by the Society include, but are not limited to, visual inspection and non-destructive testing. Unless otherwise required, surveys are conducted through sampling techniques and do not consist of comprehensive verification or monitoring of the Ship or the items subject to certification. The surveys and checks made by the Society on board ship do not necessarily require the constant and continuous presence of the Surveyor. The Society may also commission laboratory testing, underwater inspection and other checks carried out by and under the responsibility of qualified service suppliers. Survey practices and procedures are selected by the Society based on its experience and knowledge and according to generally accepted technical standards in the sector.

3. Class Report & Interested Parties Obligation

3.1. The class assigned to a Ship, like the reports, statements, certificates or any other document or information issued by the Society, reflects the opinion of the Society concerning compliance, at the time the Service is provided, of the Ship or product subject to certification, with the applicable Rules (given the intended use and within the relevant time frame).
The Society is under no obligation to make statements or provide information about elements or facts which are not part of the specific scope of the Service requested by the Interested Party or on its behalf.
3.2. No report, statement, notation on a plan, review, Certificate of Classification, document or information issued or given as part of the Services provided by the Society shall have any legal effect or implication other than a representation that, on the basis of the checks made by the Society, the Ship, structure, materials, equipment, machinery or any other item covered by such document or information meet the Rules. Any such document is issued solely for the use of the Society, its committees and clients or other duly authorized bodies and no other purpose. Therefore, the Society cannot be held liable for any act made or document issued by other parties based on the statements or information given by the Society.
The validity, application, meaning and interpretation of a Certificate of Classification, or any other document or information issued by the Society in connection with its Services, is governed by the Rules of the Society, which is the sole subject entitled to make such interpretation. Any disagreement on technical matters between the Interested Party and the Surveyor in the carrying out of his functions shall be raised in writing as soon as possible with the Society, which will settle any divergence of opinion or dispute.
3.3. The classification of a Ship or the issuance of a certificate or other document connected with classification or certification and in general with the performance of Services by the Society shall have the validity conferred upon it by the Rules of the Society at the time of the assignment of class or issuance of the certificate; in no case shall it amount to a statement or warranty of seaworthiness, structural integrity, quality or fitness for a particular purpose or service of any Ship, structure, material, equipment or machinery inspected or tested by the Society.

3.4. Any document issued by the Society about its activities reflects the condition of the Ship or the subject of certification or other activity at the time of the check.
3.5. The Rules, surveys and activities performed by the Society, reports, certificates and other documents issued by the Society are in no way intended to replace the duties and responsibilities of other parties such as Governments, designers, shipbuilders, manufacturers, repairers, suppliers, contractors or sub-contractors, Owners, operators, charterers, underwriters, sellers or intended buyers of a Ship or other product or system surveyed.

These documents and activities do not relieve such parties from any fulfilment, warranty, responsibility, duty or obligation (also of a contractual nature) expressed or implied or in any case incumbent on them, nor do they confer on such parties any right, claim or cause of action against the Society. With particular regard to the duties of the ship Owner, the Services undertaken by the Society do not relieve the Owner of his duty to ensure proper maintenance of the Ship and ensure seaworthiness at all times. Likewise, the Rules, surveys performed, reports, certificates and other documents issued by the Society are intended neither to guarantee the buyers of the Ship, its components or any other surveyed or certified item, nor to relieve the seller of the duties arising out of the law or the contract, regarding the quality, commercial value or characteristics of the item which is the subject of transaction.
In no case, therefore, shall the Society assume the obligations incumbent upon the above-mentioned parties, even when it is consulted in connection with matters not covered by its Rules or other documents.
In consideration of the above, the Interested Party undertakes to relieve and hold harmless the Society from any third-party claim, as well as from any liability about the latter concerning the Services rendered.
Insofar as they are not expressly provided for in these General Conditions, the duties and responsibilities of the Owner and Interested Parties concerning the services rendered by the Society are described in the Rules applicable to the specific service rendered.

4. Service Request & Contract Management

4.1. Any request for the Society's Services shall be submitted in writing and signed by or on behalf of the Interested Party. Such a request will be considered irrevocable as soon as received by the Society and shall entail acceptance by the applicant of all relevant requirements of the Rules, including these General Conditions. Upon acceptance of the written request by the Society, a contract between the Society and the Interested Party is entered into, which is regulated by the present General Conditions.

4.2 In consideration of the Services rendered by the Society, the Interested Party and the person requesting the service shall be jointly liable for the payment of the relevant fees, even if the service is not concluded for any cause not pertaining to the Society. In the latter case, the Society shall not be held liable for non-fulfilment or partial fulfilment of the Services requested.

4.3 The contractor for the classification of a ship or for the services may be terminated and any certificates revoked at the request of one of the parties, subject to at least 30/60/90 days' notice, to be given in writing. Failure to pay, even in part, the fees due for services carried out by the society will entitled the society to immediately terminate the contract and suspend the service.
For every termination of the contract, the fees for the activities performed until the time of the termination shall be owned to the society as well as the expenses incurred in view of activities already programmed, this is without prejudice to the right to compensation due to the society as a consequence of the termination.
With particular reference to ship classification and certification, unless decided otherwise by the society, termination of the contract implies that the assignment of class to a ship is withheld or, if already assigned, that it is suspended or withdrawn, any statutory certificates issued by society will be withdrawn in those cases where provided for by agreements between the society and the flag state.

5. Service Accuracy

5.1. In providing the Services, as well as other correlated information or advice, the Society, its Surveyors, servants or agents operate with due diligence for the proper execution of the activity. However, considering the nature of the activities performed (see **Rule Development, Implementation and Selection of Surveyor** 2.4), it is not possible to guarantee absolute accuracy, correctness and completeness of any information or advice supplied. Express and implied warranties are specifically disclaimed.

6. Confidentiality & Document sharing

6.1. All plans, specifications, documents and information provided by, issued by, or made known to the Society, in connection with the performance of its Services, will be treated as confidential and will not be made available to any other party other than the Owner without authorization of the Interested Party, except as provided for or required by any applicable international, European or domestic legislation, Charter or other IACS resolutions, or order from a competent authority. Information about the status and validity of class and statutory certificates, including transfers, changes, suspensions, withdrawals of class, recommendations/conditions of class, operating conditions or restrictions issued against classed ships and other related information, as may be required, may be published on the website or released by other means, without the prior consent of the Interested Party.
Information about the status and validity of other certificates and statements may also be published on the website or released by other means, without the prior consent of the Interested Party.

6.2. Notwithstanding the general duty of confidentiality owed by the Society to its clients in clause 7.1 below, the Society's clients hereby accept that the Society may participate in the IACS Early Warning System which requires each Classification Society to provide other involved Classification Societies with relevant technical information on serious hull structural and engineering systems failures, as defined in the IACS Early Warning System (but not including any drawings relating to the ship which may be the specific property of another party), to enable such useful information to be shared and used to facilitate the proper working of the IACS Early Warning System. The Society will provide its clients with written details of such information sent to the involved Classification Societies.
6.3. In the event of transfer of class, addition of a second class or withdrawal from a double/dual-class, the Interested Party undertakes to provide or to permit the Society to provide the other Classification Society with all building plans and drawings, certificates, documents and information relevant to the classed unit, including its history file, as the other Classification Society may require for classification in compliance with the applicable legislation and relative IACS Procedure. It is the Owner's duty to ensure that, whenever required, the consent of the builder is obtained about the provision of plans and drawings to the new Society, either by way of the appropriate stipulation in the building contract or by other agreement.
In the event that the ownership of the ship, product or system subject to certification is transferred to a new subject, the latter shall have the right to access all pertinent drawings, specifications, documents or information issued by the Society or which has come to the knowledge of the Society while carrying out its Services, even if related to a period prior to transfer of ownership.

7. Health, Safety & Environment

7.1. The clients such as the designers, shipbuilders, manufacturers, repairers, suppliers, contractors or sub-contractors, or other product or system surveyed who have a registered office in ABU Dhabi; should have an approved OSHAD as per Abu Dhabi OHS Centre, or, if they do not need to have an approved OSHAD, they shall comply with TASNEEF standards and have procedures in place to manage the risks from their undertakings.

7.2. For the survey, audit and inspection activities onboard the ship, the ship's owner, the owner representative or the shipyard must follow TASNEEF rules regarding the safety aspects.

8. Validity of General Conditions

8.1. Should any part of these General Conditions be declared invalid, this will not affect the validity of the remaining provisions.

9. Force Majeure

9.1 Neither Party shall be responsible to the other party for any delay or failure to carry out their respective obligations insofar as such delay and failure derives, directly or indirectly, and at any time, from force majeure of any type whatsoever that lies outside the control of either Party.

9.2 The Party that is unable to fulfil the agreement due to Force Majeure shall inform the other party without delay and in all cases within 7 days from when such force majeure arose.

9.3 It is understood that if such force majeure continues for more than 30 days, the Party not affected by the event may terminate this agreement by registered letter. The rights matured until the day in which the force majeure occurred remain unaffected.

10. Governing Law and Jurisdiction

This Agreement shall be governed by and construed in accordance with the laws of Abu Dhabi and the applicable Federal Laws of the UAE.
Any dispute arising out of or in accordance with this Agreement shall be subject to the exclusive jurisdiction of the Abu Dhabi courts.

11. Code of Business conduct

The **CLIENT** declares to be aware of the laws in force about the responsibility of the legal persons for crimes committed in their interest or to their own advantage by persons who act on their behalf or cooperate with them, such as directors, employees or agents.
In this respect, the **CLIENT** declares to have read and fully understood the "**Ethical Code**" published by **TASNEEF** and available in the **TASNEEF** Web site.
The **CLIENT**, in the relationships with **TASNEEF**, guarantees to refrain from any behaviour that may incur risk of entry in legal proceedings for crimes or offences, whose commission may lead to the enforcement of the laws above.
The **CLIENT** also acknowledges, in case of non-fulfilment of the previous, the right of **TASNEEF** to unilaterally withdraw from the contract/agreement even if there would be a work in progress situation or too early terminate the contract/agreement. It's up to **TASNEEF** to choose between the two above mentioned alternatives, and in both cases a registered letter will be sent with a brief sum-up of the circumstances or of the legal procedures proving the failure in following the requirements of the above-mentioned legislation.

In light of the above, it is forbidden to all employees and co-operators to:
- receive any commission, percentage or benefits of any possible kind;
- Start and maintaining any business relationship with **Clients** that could cause conflict of interests with their task and function covered on behalf of **TASNEEF.**
- Receive gifts, travel tickets or any other kind of benefits different from monetary compensation, that could exceed the ordinary business politeness.

Violation of the above-mentioned principles allows **TASNEEF** to early terminate the contract and to be entitled to claim compensation for losses if any.

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EXPLANATORY NOTE TO PART A

1. Reference edition

The reference edition for Part A is the Rules for Yachts 2024 edition, which is effective from 1 July 2024.

2. Amendments after the reference edition

2.1 Rules for Yachts 2024 has been completely rewritten and reorganised.

2.2 Except in particular cases, the Rules are updated and published annually.

3. Effective date of the requirements

3.1 All requirements in which new or amended provisions with respect to those contained in the reference edition have been introduced are followed by a date shown in brackets.

The date shown in brackets is the effective date of entry into force of the requirements as amended by the last updating. The effective date of all those requirements not followed by any date shown in brackets is that of the reference edition.

3.2 Item 6 below provides a summary of the technical changes from the preceding edition. In general, this list does not include those items to which only editorial changes have been made not affecting the effective date of the requirements contained therein.

4. Rule Variations and Corrigenda

Until the next edition of the Rules is published, Rule Variations and/or corrigenda, as necessary, will be published on the Tasneef web site (www.Tasneef.ae). Except in particular cases, paper copies of Rule Variations or corrigenda are not issued.

5. Rule subdivision and cross-references

5.1 Rule subdivision

The Rules are subdivided into six parts, from A to F.

Part A: Classification and Surveys

Part B: Hull and Stability

Part C: Machinery, Systems and Fire Protection

Part D: Materials and Welding

Part E: Service Notations

Part F: Additional Class Notations

Each Part consists of:

- Chapters
- Sections and possible Appendices
- Articles
- Sub-articles
- Requirements

Figures (abbr. Fig) and Tables (abbr. Tab) are numbered in ascending order within each Section or Appendix.

5.2 Cross-references

Examples: Pt A, Ch 1, Sec 1, [3.2.1]or Pt A, Ch 1, App 1, [3.2.1]

- Pt A means Part A

The part is indicated when it is different from the part in which the cross-reference appears. Otherwise, it is not indicated.

- Ch 1 means Chapter 1

The Chapter is indicated when it is different from the chapter in which the cross-reference appears. Otherwise, it is not indicated.

- Sec 1 means Section 1 (or App 1 means Appendix 1)

The Section (or Appendix) is indicated when it is different from the Section (or Appendix) in which the cross-reference appears. Otherwise, it is not indicated.

- [3.2.1] refers to requirement 1, within sub-article 2 of article 3.

Cross-references to an entire Part or Chapter are not abbreviated as indicated in the following examples:

- Part A for a cross-reference to Part A
- Part A, Chapter 1 for a cross-reference to Chapter 1 of Part A.

RULES FOR THE CLASSIFICATION OF YACHTS

Part A
Classification and Surveys

Chapters **1 2 3 4**

CHAPTER 1 GENERAL PRINCIPLES OF CLASSIFICATION

Section 1 General Principles of Classification

Section 2 Classification Notations

CHAPTER 2 ASSIGNMENT, MAINTENANCE, SUSPENSION AND WITHDRAWAL OF CLASS

Section 1 Assignment of Class

Section 2 Maintenance of Class

Section 3 Suspension and Withdrawal of Class

Appendix 1 Alternatives, relaxations and additional considerations for yachts of less than 500 GT

Appendix 2 Alternatives, relaxations and additional considerations for yachts of less than 24m LLL

Appendix 3 Compulsory Tests on Materials, Machinery and Appliances

Appendix 4 Cms and Pms Systems Surveys carried out by the Chief Engineer

Appendix 5 Thickness Measurements: Extent, Determination of Locations and Acceptance Criteria

Appendix 6 Criteria for Longitudinal Strength of the Hull Girder

Appendix 7 Remote Surveys

CHAPTER 3 SCOPE OF SURVEYS

Section 1 Survey for New Construction

Section 2 Survey for Assignment of Class of a Yacht in Service

Section 3 Annual Survey

Section 4 Hull Intermediate Survey

Section 5 Class Renewal Survey

Section 6 Bottom Survey

Section 7 Tailshaft Survey

Section 8 Gas Fuelled Yachts

Appendix 1 Alternatives, relaxations and additional considerations for yachts of less than 500 GT

Appendix 2 Alternatives, relaxations and additional considerations for yachts of less of less than 24m LLL

Appendix 3 Additional Scope of Survey for Yachts with Reinforced Plastic Hulls

Appendix 4 Additional Scope of Survey for Yachts with Aluminium Alloy Hulls

Appendix 5 Additional Scope of Survey for Yachts with Wooden Hulls

Appendix 6 Class Requirements and Surveys of Laid-up Yachts

CHAPTER 4 SCOPE OF SURVEYS RELATED TO ADDITIONAL CLASS NOTATIONS

Section 1 General

Section 2 Automated Machinery Systems

Section 3 Pollution Prevention

Section 4 Comfort on Board

Section 5 Monitoring Equipment

Section 6 Damage Stability

Section 7 Inwatersurvey

Section 8 Secure Yacht

Section 9 Ice Class and Polar class

Section 10 Enhanced Anchoring Equipment

Section 11 Dolphin

Section 12 Hybrid

Section 13 Remote

Section 14 WAPS

Section 15 Planned Maintenance System

Section 16 Cyber Yacht

Section 17 Digital Yacht

Section 18 BIOFUEL Yacht

Section 19 GAS FUELLED Yacht

Section 20 LPG or NH3 Fuelled Yacht

Section 21 Hydrogen Fuelled Yacht

Section 22 Methyl/Ethyl Alcohol Fuelled Yacht

Section 23 Battery Powered Yacht

Section 24 Fuel Cell Powered Yacht

Section 25 RIG

Chapter 1

GENERAL PRINCIPLES OF CLASSIFICATION

SECTION 1 GENERAL PRINCIPLES OF CLASSIFICATION

1 Principles of classification

1.1 Purpose of the Rules

1.1.1

The Rules published by the Society give the requirements for the assignment and the maintenance of class for yachts.

Class assigned to a yacht reflects the discretionary opinion of the Society that the yacht, for declared conditions of use and within the relevant time frame, complies with the Rules applicable at the time the service is rendered.

The general conditions of classification are laid down in the "General Conditions" placed at the beginning of this Part.

1.1.2

These Rules apply to "yachts" as specified below intended to be registered as commercial vessels or not, carrying not more than 12 passengers when in commercial use.

These Rules do not apply to "passenger yachts" as defined below for which the Tasneef Rules for the Classification of Ships as passenger ship entirely is to be applied.

1.1.3

"Yacht" means a vessel engaged in commercial use or not, used for sport or pleasure, not carrying cargo and, when engaged in commercial use, not carrying more than 12 passengers.

"Passenger Yachts" means a vessel engaged in commercial use or not used for sport or pleasure, not carrying cargo and when, engaged in commercial use, carrying from 13 to 36 passengers as defined by the Administration.

1.1.4

The application criteria of the different parts of the present Rules are the following:

- Part A - Classification and Surveys
- Part B - Hull and Stability
- Part C - Machinery, Electrical Installations and Fire Protection
- Part D - Materials and Welding
- Part E - Service Notation Pleasure Yacht
- Part F - Additional Class Notations applies on voluntary base at the request of the Interested Party.

Part A,B,C,D and on voluntary base also Part F are applicable to yacht of any GT and length, by the following:

For yacht engaged in commercial use of more than 500GT, Pt A, B, C, D, F are applicable; if less than 500GT, alternative solutions and relaxations included in Appendix 1 of Parts A-B-C-D-F are applicable, (if any).

As far as equivalences with this rules, reference is to be made to [2.1].

Appendix 1 of each chapter of part A, B, C, D and F includes the alternative solutions if any to the requirements set in each section of the chapter that may be adopted for yachts of less than 500 GT. Any other alternative to the requirement is to be agreed with Society.

For yachts engaged in commercial use of less than 24m Load Line Length, alternative solutions and relaxations included in Appendix 2 of Parts A-B-C-D-F are applicable, (if any).

In appendix 2 of each chapter of part A, B, C, D are indicated the alternative solutions, if any, to the requirements set in each section of the chapter that may be adopted for yachts of less than 24m in load line LLL.

When a specific Appendix 1 for yachts of less than 500 GT is not foreseen in a chapter this means that the chapter is applicable fully also to yachts of less than 500GT.

When a specific Appendix 2 for yachts of less than 24m LLL is not foreseen in a chapter this means that the relevant chapter and Appendix 1 for yachts of less than 500 GT is applicable as far as it is practicable also to yachts of less than 24m in Load Line Length.

For yachts not engaged in commercial use (i.e. pleasure or private yachts) Pt A,B,C,D, F are applicable considering also the Alternatives solutions/relaxations for yachts not intended to be registered as commercial included in Part E.

Pt E Chapter 1 is applicable to pleasure yachts of more than 500GT, Chapter 2 for Yachts of less than 500GT and Chapter 3 to yachts of less than 24m in Load Line Length.

Note 1: In case of yachts having Load Line length LLL of less than 24m and a length LH as defined in ISO 8666 equal or more than 24 m special considerations may be done by Tasneef.

Note 2: In case of yachts having Load Line length LLL equal or more than 24m and a length LH as defined in ISO 8666 of less than 24 special considerations may be done by Tasneef.

Yachts to be registered as commercial vessels may be subjected to limitations imposed by the flag Administrations (e.g. as regards number of passengers, tonnage, navigation, sea conditions, etc) additional to/different from those prescribed by these Rules.

Sailing yacht is a yacht designed to carry sail, whether as a sole means of propulsion or as a supplementary means.

The requirements for sailing yachts are in general the same as for motor yachts and when alternatives for these type of yachts are foreseen, they are reported in each paragraph.

1.2 General definitions

1.2.1

The following general definitions are used in these Rules:

a) Society means Tasneef and/or all the companies in the Tasneef Group which provide the Services

b) Rules means these Rules for the Classification of Yachts and documents issued by the Society serving the same purpose.

c) Surveyor means technical staff acting on behalf of the Society to perform tasks in relation to classification and survey duties

d) Survey means an intervention by the Surveyor for assignment or maintenance of class as defined in Chapter 2, or interventions by the Surveyor within the limits of the tasks delegated by the Administrations

e) Remote Survey means a survey carried out by the Society without physical attendance of the Surveyor on board, based upon appropriate digital evidence (videos, pictures, documents) taken in livestreaming and/or offline and gathered to demonstrate continuing compliance with the Rules.

Note 1: Remote classification activities not requiring a survey, such as some administrative tasks, are not to be considered as remote surveys.

f) Administration means the Government of the State whose flag the yacht is entitled to fly or the State under whose authority the yacht is operating in the specific case.

g) Interested Party means a party, other than the Society, having responsibility for the classification of the yacht, such as the Owner of the yacht and his representatives, or the Yachtbuilder, or the Engine Build-er, or the Supplier of parts to be tested.

h) QSCS Classification Society means a Classification Society which is subject to verification of compliance with the IACS Quality System Certification Scheme (QSCS)

i) Owner means the Registered Owner or the Disponent Owner or the Manager or any other party having the responsibility to keep the yacht seaworthy, having particular regard to the provisions relating to the maintenance of class laid down in Chapter 2

j) Approval means the examination and acceptance by the Society of documents, procedures or other items related to classification, verifying solely their compliance with the relevant Rules requirements, or other references where requested

k) Type approval means an approval process for verifying compliance with the Rules of a product, a group of products or a system, and considered by the Society as representative of continuous production

l) Essential service is intended to mean a service necessary for a yacht to proceed at sea, be steered or manoeuvred, or undertake activities connected with its operation, and for the safety of life, as far as class is concerned.

1.3 Meaning of classification, scope and limits

1.3.1

The classification consists of:

- the development of Rules, guides and other documents relevant to the yacht, structure, material, equipment, machinery and any other item covered by such documents
- the examination of plans and calculations and the surveys, checks and tests intended to ensure that the yacht meets the Rules (refer to Ch 2, Sec 1)

- the assignment of class (see Ch 2, Sec 1) and issue of a Certificate of Classification, where the above Rules are met
- the periodical, occasional and class renewal surveys performed to verify that the yacht in service meets the conditions for maintenance of class (see Ch 2, Sec 2).

1.3.2

The Rules, surveys performed, reports, certificates and other documents issued by the Society, are in no way intended to replace or alleviate the duties and responsibilities of other parties such as Administrations, Design-ers, Yacht Builders, Manufacturers, Repairers, Suppliers, Contractors or Sub-contractors, actual or prospective Owners or Operators, Charterers, and Underwriters. The Society cannot therefore assume the obligations arising from these functions, even when the Society is consulted to answer inquiries concerning matters not covered by its Rules, or other documents.

The activities of such parties which fall outside the scope of the classification as set out in the Rules, such as de-sign, engineering, manufacturing, operating alternatives, choice of type and power of machinery and equip-ment, number and qualification of crew or operating personnel, lines of the yacht, trim, hull vibrations, spare parts including their number, location and fastening arrangements, life-saving appliances, and maintenance equipment, remain therefore the responsibility of those parties, even if these matters may be given consideration for classification according to the type of yacht or additional class notation assigned.

The classification-related services and documents performed and issued by the Society do not relieve the parties concerned of their responsibilities or other contractual obligations expressed or implied or of any liability what-soever, nor do they create any right or claim in relation to the Society with regard to such responsibilities, obligations and liabilities. In particular, the Society does not declare the acceptance or commissioning of a yacht or any part of it, this being the exclusive responsibility of the Owner.

1.3.3

Unless otherwise specified, the Rules do not deal with structures, pressure vessels, machinery and equipment which are not permanently installed and used solely for operational activities, except for their effect on the classification-related matters, as declared by the Interested Party, such as fire protection and yacht's general strength.

During periods of construction, modification or repair, the unit is solely under the responsibility of the builder or the repair yard. As an example, the builder or repair yard is to ensure that the construction, modification or re-pair activities are compatible with the design strength of the yacht and that no permanent deformations are sustained.

Refer to [3.3] as regards the Owner's responsibility for maintenance and operation of the yacht in relation to the maintenance of class.

1.4 Request for services

1.4.1

Requests for interventions by the Society, such as surveys during construction, surveys of yachts in service, tests, etc., are in principle to be submitted in writing and signed by the Interested Party. Such request implies that the applicant will abide by all the relevant requirements of the Rules, including its "General Conditions".

In case the Interested Party requests a survey, test, etc. to be remotely carried out, the Society reserves to ac-cept the request in its absolute discretion.

A remote survey may be carried out if the yacht complies with the requirements in Ch 2, Sec 2, [2.1.9] and Ch 2, App 7.

In case the Society accepts the remote survey request, the Interested Party is to ensure compliance with the re-quirements in Ch 2, App 7, that imply the Owner/Owner's representative responsibility:

The Society reserves the right to refuse or withdraw the class of any yacht for which any applicable requirement of the Rules is not complied with.

1.5 Register of ships

1.5.1

A Register of Ship including yachts is published periodically by the Society. This publication, which is updated by the Society, contains the names of yachts which have received the Certificate of Classification, as well as particulars of the class assigned and information concerning each yacht.

2 Rules

2.1 Equivalence

2.1.1

The Society may consider the acceptance of alternatives to these Rules, provided that they are deemed to be equivalent to the Rules to the satisfaction of the Society (i.e when a requirement of this Regulation cannot be met because it is not practical and reasonable in the particular case, or because innovative technologies are used, alternative solutions can be accepted provided they are recognized as equivalent following a detailed risk analysis).

2.2 Effective date

2.2.1

The effective date of entry into force of any amendments to the Rules is indicated on the inside front page of each Part of the Rules.

In principle, the applicable Rules for assignment of class to a new yacht are those in force at the date when the contract for construction between the Owner and the yacht builder is signed, or the date of construction whichever comes first (see Note 1 and Note 2).

Note 1:

- The date of "contract for construction" of a yacht is the date on which the contract to build the yacht is signed between the prospective Owner and the yacht builder. This date and the construction numbers (i.e. hull numbers) of all the yachts included are to be declared to the Society by the party applying for the assignment of class to a new building.
- The date of "contract for construction" of a series of yachts, including specified optional yachts for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective Owner and the yacht builder. For the purpose of this issue, yachts built under a single contract for construction are considered a "series of yachts" if they are built to the same approved plans for classification purposes. However, yachts 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, either these alterations comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective Owner and the yacht builder or, in the absence of the alteration contract, they comply with the classification requirements in effect on the date on which the alterations are sub-mitted to the Society for approval.

  The optional yachts will be considered part of the same series of sister yachts, if the option is exercised not later than one year after the contract to build the series was signed.
  - If a contract for construction is later amended to include additional yachts or additional options, the date of "contract for construction" for such yachts is the date on which the amendment to the contract is signed between the prospective Owner and the yacht builder. The amendment to the contract is to be considered as a "new contract" to which a) and b) above apply.
  - If a contract for construction is amended to change the yacht type, the date of "contract for construction" of this modified yacht, or yachts, is the date on which the revised contract or new contract is signed between the Owner, or Owners, and the yacht builder.

Note 2:

The date of construction is the keel laid date or a similar stage of construction.

Similar stage of construction means at a stage which:

(a) construction identifiable with a specific vessel begins; and

(b) assembly of that vessel, comprising at least 50 tonnes or 1% of the estimated mass of all structural material has commenced; or

(c) In the case of vessels constructed of FRP or GRP this shall be considered as the date when more than 5%, or a different value defined by the Flag Administration, of the hull resin and reinforcement has been laid.

2.2.2

Special consideration may be given to applying new or modified rule requirements which entered into force sub-sequent to the date of the contract, at the discretion of the Society and in the following cases:

- when a justified written request is received from the party applying for classification
- when the keel is not yet laid and more than one year has elapsed since the contract was signed
- where it is intended to use existing previously approved plans for a new contract.

2.2.3

The above procedures for application of the Rules are, in principle, also applicable to existing yachts in the case of major conversions and, in the case of alterations, to the altered parts of the yacht.

2.2.4

The rule requirements related to assignment, maintenance and withdrawal of the class of yachts already in operation, are applicable from the date of their entry into force.

2.2.5

In principle, the applicable Rules for the certification of a new equipment to be installed on board are those in force at the date of the Manufacturer request for certification.

Special consideration may be given in applying other requirements, e.g. those in force when the contract for yacht construction was signed, at the discretion of the Society.

2.3 Novel features

2.3.1

The Society may consider the classification of yachts based on or applying novel design principles or features, to which the Rules are not directly applicable, on the basis of experiments, calculations or other supporting information provided to the Society. The specific limitations may then be indicated on the Certificate of Classification.

2.4 Interpretation

2.4.1

The Society alone is qualified to decide upon the meaning, interpretation and application of the Rules and other classification-related documents. No reference to the Rules or other classification-related documents has any value unless it involves, accompanies or follows the intervention of the Society.

2.5 Disagreement and appeal

2.5.1

Any technical disagreement with the Surveyor in connection with the performance of his duties should be raised by the Interested Party as soon as possible.

The Interested Party may appeal in writing to the Society, which will subsequently consider the matter and announce its decision according to its established procedure.

3 Duties of the Interested Parties

3.1 International and national regulations

3.1.1

The classification of a yacht does not absolve the Interested Party from compliance with any requirements is-sued by Administrations and any other applicable international and national regulations for the safety of life at sea and protection of the marine environment.

3.1.2

When authorised by the Administration concerned, the Society will act on its behalf within the limits of such au-thorisation. In this respect, the Society will take into account the relevant national requirements, survey the yacht, report and issue or contribute to the issue of the corresponding certificates.

The above surveys do not fall within the scope of the classification of yachts, even though their scope may over-lap in part and may be carried out concurrently with surveys for assignment or maintenance of class.

3.1.3

In general the IACS Unified Interpretations applicable to a yacht and its machinery and equipment in accordance with the implementation dates and provisions stated in the Unified Interpretations themselves will be applied, as appropriate, and as far as it is practicable and reasonable, by the Society when acting as a recognised organisation, authorised by a flag State Administration to act on its behalf, unless the flag Administration provides its own interpretation.

3.1.4
In the case of a discrepancy between the provisions of the applicable international and national regulations and those of the Rules, normally, the former take precedence. However, the Society reserves the right to call for the necessary adaptation to preserve the intention of the Rules or to apply the provisions of [1.4.1].

3.2 Surveyor's intervention

3.2.1
Surveyors are to be given free access at all times, either on board yacht or with remote techniques, to yachts which are classed or being classed, shipyards and works, to carry out their interventions within the scope of assignment or maintenance of class, or within the scope of interventions carried out on behalf of Administrations, when so delegated.

Free access is also to be given to auditors accompanying the Surveyors of the Society within the scope of the vertical audits as required in pursuance of the Society's internal Quality System or as required by external organizations.

3.2.2
Interested Parties are to take the necessary measures for the Surveyors' inspections and testing to be carried out safely. Interested Parties - irrespective of the nature of the service provided by the Surveyors of the Society or others acting on its behalf - assume with respect to such Surveyors all the responsibility of an employer for his workforce such as to meet the provisions of applicable legislation. As a rule, the Surveyor is to be constantly accompanied during surveys by personnel of the Interested Party. Refer also to Ch 2, Sec 2, [2.5] to Ch 2, Sec 2, [2.10].

For safe entry into confined spaces, the requirements of IACS Procedural Requirement No. 37 "Procedural Requirement for Confined Space Safe Entry" apply.

3.2.3
The Certificate of Classification and/or other documents issued by the Society remain the property of the Society. All certificates and documents necessary to the Surveyor's interventions are to be made available by the Interested Party to the Surveyor on request.

3.2.4
The Certificate of Classification and/or other documents issued by the Society remain the property of the Society. All certificates and documents necessary to the Surveyor's interventions are to be made available by the Interested Party to the Surveyor on request.

3.3 Operation and maintenance of yachts

3.3.1 Operation of the yacht
The classification of a yacht is based on the understanding that the yacht is loaded and operated in a proper manner by competent and qualified crew or operating personnel according to the loading, environmental, operating and other criteria on which classification is based.

In particular, it will be assumed that the draught of the yacht in operating conditions will not exceed that corresponding to the freeboard assigned or the maximum approved for the classification, that the yacht will be properly loaded taking into account both its stability and the stresses imposed on its structures. That the speed and course of the yacht are adapted to the prevailing sea and weather conditions according to the normal prudent seamanship and that the yacht is operated in accordance with the applicable international and national regulations for the prevention and containment of marine pollution.

3.3.2 Maintenance of the yacht
Any document issued by the Society in relation to its interventions reflects the condition of the yacht as found at the time and within the scope of the survey. It is the Interested Party's responsibility to ensure proper maintenance of the yacht until the next survey required by the Rules. It is the duty of the Interested Party to inform the Surveyor when he boards the yacht of any events or circumstances affecting the class.

3.3.3 Hull inspection and maintenance schemes
Hull inspection and maintenance schemes may be adopted by the Owner as a means for maintaining compliance with classification and statutory requirements between surveys. However, these schemes will not be accepted as an alternative to, or a substitute for, the performance of required classification and/or statutory surveys of the hull by the Surveyors of the Society, or of another duly authorised Society (see Note 1). No information received from the Owner indicates that, where adopted, these schemes have proven to be free from any deficiencies.

Note 1: The Surveyors may be assisted, where appropriate, by service suppliers as defined in the "Rules for the certification of service suppliers".

3.4 Flag and Port State Control inspections

3.4.1 Owner's duties

When a yacht is detained further to an inspection by a Port State Authority or the flag Administration, Owners are to:

- immediately report the outcome of this inspection to the Society, and
- ask the Society to perform an occasional survey in order to verify that the deficiencies, when related to the class of the yacht or to the statutory certificates issued by the Society on behalf of the flag Administration, are rectified and/or the necessary repair work is carried out within the due time.

Should the Owners fail to notify the Society of detention of a yacht, the Society reserves the right to suspend or withdraw its classification.

3.4.2 Co-operation with and assistance to inspecting Authorities

The Society will co-operate during Port State Control inspections by:

a) liaising with Port State Control Authorities to ensure that Surveyors are called in as appropriate when deficiencies related to class and statutory matters are found;

b) liaising with Port State Control Officers to ensure uniformity of interpretation of class and statutory requirements;

c) providing Port State Control Officers, upon request, with background information, extracts from re-ports pertinent to the inspection, and details of outstanding conditions of class and statutory items;

d) liaising with the flag State in accordance with any prior agreement, and the Owner's representative and/or Company, in order to ensure that both parties are fully aware of actions being taken that affect safety-related matters of either a class or statutory nature.

Any request received from a Port State to attend on board a yacht is dealt with promptly and efficiently by the Society in order to assist in the rectification of reported hardware deficiencies or other discrepancies.

Before attending on the yacht, the Society will inform the Company, either directly or through the Owner's representative, of the purpose of the visit.

3.5 Use of measuring equipment and of service suppliers

3.5.1 General

Firms providing services on behalf of the Interested Party, such as measurements, tests and servicing of safety systems and equipment, the results of which may form the basis for the Surveyor's decisions, are subject to the acceptance of the Society, as deemed necessary.

The equipment used during tests and inspections in workshops, shipyards and on board yachts, the results of which may form the basis for the Surveyor's decisions, is to be customary for the checks to be performed. Firms are to individually identify and calibrate to a recognised national or international standard each piece of such equipment.

3.5.2 Simple measuring equipment

The Surveyor may accept simple measuring equipment (e.g. rulers, tape measures, weld gauges, micrometers) without individual identification or confirmation of calibration, provided it is of standard commercial design, properly maintained and periodically compared with other similar equipment or test pieces.

3.5.3 Shipboard measuring equipment

The Surveyor may accept measuring equipment fitted on board a yacht (e.g. pressure, temperature or rpm gauges and meters) and used in examination of shipboard machinery and/or equipment based either on calibration records or comparison of readings with multiple instruments.

3.5.4 Other equipment

The Surveyor may request evidence that other equipment (e.g. tensile test machines, ultrasonic thickness measurement equipment, etc) is calibrated to a recognised national or international standard.

3.6 Spare parts

3.6.1

It is the Owner's responsibility to decide whether and which spare parts are to be carried on board.

3.6.2

As spare parts are outside the scope of classification, the Surveyor will not check that they are kept on board, maintained in a satisfactory condition, or suitably protected and lashed.

However, in the case of repairs or replacement, the spare parts used are to meet the requirements of the Rules as far as practicable; refer to Ch 2, Sec 2, [11.4.2].

3.7 Use of asbestos

3.7.1

New installation of materials which contain asbestos is prohibited.

3.8 Evidence for remote survey

3.8.1

In case of remote survey carried out on the basis of digital or documentary evidence (videos, pictures, documents) taken in live-streaming and/or offline mode the Interested Party undertakes that they are relevant to the yacht and to the item/equipment under survey, taken by the responsible personnel/crew on a specific date/time to be declared to Tasneef and original, i.e. they have not been manipulated or altered.

3.8.2

Both in the case of live-streaming and offline remote survey all digital or documentary evidence provided during the remote survey shall be complete to the satisfaction of the Society's surveyor. At any time before, during and/or at completion of the remote survey and in its absolute discretion The Society reserves to: a) ask for further documentary evidence; and/or b) request a live-streaming remote survey in case an offline remote survey is requested; and/or c) request a traditional survey with the physical presence of its surveyor(s) on board the yacht in case the remote survey does not provide the same level of assurance of attendance on board.

3.8.3

At the end of the remote survey the yacht's master is to record in the yacht's logbook the details of the remote survey carried out by the Society, including the date and time of survey, the port of the survey, the scope of the survey, the identity and rank of the crew members using the devices to take digital evidence. In case the remote survey cannot be carried out in livestreaming for specific survey items due to a lack of an effective internet connection, digital evidence taken offline can be provided to the Society upon agreement of the attending Surveyor. This evidence is to be reviewed by the attending surveyor before completion of the remote survey. At the time the digital evidence taken offline are submitted to the Society, the master is to record this action in the yacht's logbook: such recording must include date and time on which the electronic files were taken, port or place, scope of the survey, item or equipment subject of the survey, identity and rank of the crew members using the devices to take the offline digital evidence provided to the Society. Evidence of the above-mentioned recordings in the yacht's logbook are to be provided to the Surveyor.

3.9 Management of Statutory Certificates

3.9.1

Class requirements applicable for yachts intended for commercial registration are those for commercial service. Statutory certificates in compliance with Commercial Safety Code for yachts are to be issued only to yachts with commercial service notation.

3.9.2

Yachts registered for private service (not in commercial use) but built in compliance to commercial service notation and to Flag Administration requirements may require on voluntary base relevant Statutory Certificates, or statement of Compliance, as applicable. The service reported in the class certificate is to be commercial.

3.9.3

During the admission to class process of an existing yacht classed by a Classification Society with a class notation intended for commercial registration is to be assigned with Tasneef commercial service notation.

3.10 Aesthetics

3.10.1

The general appearance, aesthetic, arrangement or layout of the yacht is not a matter of Class, the responsibility to comply with the agreed specifications remains to the Shipyard and/or the Designer.

SECTION 2 CLASSIFICATION NOTATIONS

1 General

1.1 Purpose of the classification notations

1.1.1

The classification notations give the scope according to which the class of the yacht has been based and refer to the specific rule requirements which are to be complied with for their assignment. In particular, the classification notations are assigned according to the type, service and navigation of the yacht and other criteria which have been provided by the Interested Party, when applying for classification.

The Society may change the classification notations at any time, when the information available shows that the requested or already assigned notations are not suitable for the intended service, navigation and any other criteria considered for classification.

Note 1: Reference should be made to Sec 1, [1.3] on the limits of classification and its meaning.

1.1.2

The classification notations assigned to a yacht are indicated on the Certificate of Classification, as well as in the Register of Ships published by the Society.

1.1.3

Yachts and units, other than those covered in Parts B, C, D, E and F, are to comply with specific Rules published by the Society, which also stipulate the relevant classification notations.

1.1.4

The classification notations applicable to existing yachts conform to the Rules of the Society in force at the date of assignment of class, as indicated in Ch 2, Sec 1. However, the classification notations of existing Yachts may be updated according to the current Rules, as far as applicable.

1.2 Types of notations assigned

1.2.1

The types of classification notations assigned to a yacht are the following:

a) main class symbol

b) construction marks

c) service notations with additional service features, as applicable

d) navigation notations

e) additional class notations (optional)

The different classification notations and their conditions of assignment are listed in [2] to [6] below, according to their types.

1.2.2

As an example, the classification notations assigned to a yacht may be as follows (the kind of notation shown in brackets does not form part of the classification notation indicated in the Register of Ships and on the Certificate of Classification):

- **C ✠ HULL ● MACH**
  (main class symbol, construction marks)
- **Y**
  (service notation)
- **Unrestricted navigation**
  (navigation notation)
- **GREEN PLUS (Y)**
  (additional class notation)

or

- **C ✠ HULL ✠ MACH**
  (main class symbol, construction marks)
- **Y_{ch}**
  (service notation)
- **Unrestricted navigation**
  (navigation notation)
- **AUT-UMS (Y)**
  (additional class notation)

2 Main class symbol

2.1

2.1.1
The main class symbol expresses the degree of compliance of the yacht with the Rule requirements as regards its construction and maintenance. There is one main class symbol, which is compulsory for every classed yacht.

The symbol **C** with the 5-year class period is to be understood as being the highest class granted by Tasneef.

2.1.2
The main class symbol **C** may be accompanied by the notation "**E**" (Experimental) to be assigned to yachts designed and built according to criteria which are novel or unusual, either wholly or in part, though judged satisfactory by Tasneef based on design plans, laboratory tests and tests in working conditions after construction. The notation implies a class period to be assigned which will be evaluated by Tasneef for each case.

Except for special cases, class is assigned to a yacht only when the hull, propulsion and auxiliary machinery installations, and equipment providing essential services have all been reviewed in relation to the requirements of the Rules.

3 Construction marks

3.1 General

3.1.1
The construction mark identifies the procedure under which the yacht and its main equipment or arrangements have been surveyed for initial assignment of the class. The procedures under which the yacht is assigned one of the construction marks are detailed in Ch 2, Sec 1.

3.1.2
One of the construction marks defined below is assigned separately to the hull of the yacht and its appendages, to the machinery installation, and to some installations for which an additional classification notation (see [6] below) is assigned. The construction mark is placed before the symbol **HULL** for the hull, before the symbol **MACH** for the machinery installations, and before the additional class notation granted, when such a notation is eligible for a construction mark. When the same construction mark is assigned to both hull and machinery, the construction mark is assigned globally to the yacht without indication **HULL** and **MACH** after the main class symbol.

If the yacht has no machinery installations covered by classification, the symbol **MACH** is not granted and the construction mark will be placed before the symbol **HULL**.

3.1.3
Construction marks refer to the original condition of the yacht. However, Tasneef may change the construction mark where the yacht is subjected to repairs, conversion or alterations.

3.2 List of construction marks

3.2.1
Construction mark ✠ is assigned to the relevant part of the yacht when it has been surveyed by Tasneef during its construction in compliance with the new building procedure detailed in Ch 2, Sec 1, [2.1].

3.2.2

The mark ✠ is assigned to the relevant part of the yacht, when the latter is classed after construction in compliance with the procedure detailed in Ch 2, Sec 1, [3.2] and it was built under the survey of a QSCS Classification Society and was assigned by this Society a class deemed equivalent to that described in the Rules.

This mark is assigned to yachts:

a) admitted to class in the course of construction surveyed by another QSCS Classification Society;

b) for which the procedure detailed in Ch 2, Sec 1, [3.2] does not apply, as it was declassified from a QSCS Classification Society for a period longer than six months, but which was built according to the Rules and under the survey of a QSCS Classification Society. In this case, the admission to class survey is to confirm that the yacht has not undergone conversions or modifications or alterations, which were not approved by a QSCS Classification Society.

3.2.3

The marks ✠[,✠] ● and **MACH** may be assigned to a yacht when the machinery comply with the relevant requirements set in the tables set in Ch 2, App 3 "COMPULSORY TESTS ON MATERIALS, MACHINERY AND APPLIANCES".

3.2.4

For a new building yacht it is deemed acceptable for the assignment of the mark ● **MACH** at least what is required for mark ✠ **MACH** with the exception of the testing activities.

3.2.5

For an existing yacht it is deemed acceptable for the assignment of the mark ● **MACH** at least the approval of the design in accordance with Tasneef Rules.

4 Service notations

4.1 General

4.1.1

The following service notations may be assigned

Y

The service notation yacht is assigned to a yacht complying with Parts A to E, not engaged in commercial use, used for sport or pleasure, not carrying cargo.

or

Y_{ch}

The service notation yacht is assigned to a yacht complying with Parts A to D engaged in commercial use, used for sport or pleasure, not carrying cargo and not carrying more than 12 passengers.

4.1.2

The service notation passenger yacht may be assigned to a yacht of more than 24m intended to carry from 13 to 36 passengers engaged in trade that does not carry cargo and that satisfy entirely Tasneef Rules for the Classification of Ships as applicable to passenger ships.

In case of a "passenger yacht" the classification notation will be for example **C**, ✠ **HULL**, ● **MACH**, **passenger yacht**, **GREEN PLUS**. Also, for the assignment of additional class notation reference is to be the Tasneef Rules for the Classification of Ships for passenger ships carrying up to 36 passengers.

To sailing yachts the service notations may be completed by the additional service feature (**SAIL**).

5 Navigation notations

5.1

5.1.1

The navigation notation "**unrestricted navigation**" is assigned to a yacht intended to operate in any area and any period of the year.

5.1.2

The navigation notation "**short range**" is assigned to a yacht having a service notation **Y_{ch}**, intended to operate in any period of the year within 60 miles from the shore or from a port of refuge or safe sheltered anchorage.

5.1.3

The navigation notation "**special navigation**" is assigned to a yacht where the area and/or the period of navigation is different from those described above. The relevant description is to be indicated in brackets (e.g. Special Navigation (sheltered area)).

5.1.4 *(1/1/2025)*

The relaxations allowed for short range yachts **Ych** are applicable also to pleasure yachts **Y**.

6 Additional class notations

6.1 General

6.1.1

An additional class notation expresses the classification of additional equipment or a specific arrangement, which has been requested by the Interested Party. The assignment of such additional class notation is subject to compliance with additional Rule requirements which are detailed in Part F.

The different additional class notations which may be assigned to a yacht are listed in [6.2] to [6.25].

6.1.2

Other additional class notations may also be assigned among those listed in Pt A, Ch 1, Sec 2, [6] of the Tasneef Rules for Classification of Ships, subject to compliance with the additional specific requirements detailed in such Rules, as applicable.

6.2 Automated machinery systems (AUT)

6.2.1 General

The notations dealt with under this heading are relevant to automated machinery systems installed on board yachts.

6.2.2 Unattended machinery space (AUT - UMS (Y))

The additional class notation **AUT-UMS (Y)** is assigned to yachts fitted with automated installations enabling machinery spaces to remain periodically unattended in all sailing conditions, including manoeuvring, and complying with the requirements of Pt F, Ch 2.

6.2.3 Centralised control station (AUT-CCS (Y))

The additional class notation **AUT-CCS (Y)** is assigned to yachts fitted with machinery installations operated and monitored from a centralised control station. The requirements for the assignment of this notation are given in Pt F, Ch 2.

6.3 GREEN PLUS (Y)

6.3.1

The additional class notations **GREEN PLUS(Y)**, **(GREEN PLUS(Y) (GOLD)** or **GREEN PLUS(Y) (PLATINUM)** are assigned to yachts provided with construction and procedural means to prevent pollution of the sea and air and complying with the requirements of Pt F, Ch 3.

6.4 Comfort on Board

6.4.1 Comfort YACHT (Y)

The additional class notation **COMF (Y)** is assigned to yachts satisfying levels of noise and vibration measured on board during navigation and at berth and complying with the requirements of Pt F, Ch 4.

6.4.2 Comfort LARGE YACHT (COMF(LY))

The additional class notation **COMF (LY)** is assigned to yachts with lengths equal to or greater than 45 m satisfying levels of noise and vibration measured on board during navigation and at berth according with the requirements of Pt F, Ch 4.

6.5 Monitoring system (MON-SHAFT (Y))

6.5.1

The additional class notation **MON-SHAFT (Y)** is assigned to yachts which are fitted with a temperature monitoring system for the tailshaft sterntube aft bearing and complying with the requirements of Pt F, Ch 5. The assignment of this notation allows the yacht to be granted a reduced scope for complete tailshaft survey.

6.6 Damage Stability (DMS)

6.6.1

The additional class notation **DMS** is assigned to yachts complying with the damage stability requirements of Pt F, Ch 6.

6.7 In-water survey arrangements (INWATERSURVEY (Y))

6.7.1

The additional class notation **INWATERSURVEY (Y)** is assigned to yachts provided with suitable arrangements to facilitate the in-water survey and complying with the requirements of Pt F, Ch 7.

6.8 Secure yacht

6.8.1

The additional class notation **SECURE YACHT DESIGN** is assigned to yachts having security equipment according with the requirements of Part F, Ch 8.

6.9 Ice class & Polar Class

6.9.1

The additional class notation **ICE CLASS** is assigned to yachts that are strengthened for navigation in ice according with the requirements of Pt F, Ch 9.

6.10 ENHANCED Anchoring Equipment

6.10.1

The additional class notation **ENHANCED Anchoring Equipment (Y), ENHANCED Anchoring Equipment (Y) GOLD**, **ENHANCED Anchoring Equipment (Y) PLATINUM** is assigned to yachts provided with enhanced equipment for anchoring.

The requirements for the assignment of this additional class notation are given in Pt F, Ch 10.

6.11 Dolphin yacht

6.11.1

The additional class notation **DOLPHIN YACHT** is assigned to yachts whose design is such as to ensure a low environmental impact originated from underwater noise radiation.

The requirements for the assignment of this additional class notation are given in Pt F, Ch 11.

6.12 Propulsion plant (HYBRID PROPULSION (…))

6.12.1

The additional class notation **HYBRID PROPULSION (…)** is assigned to yachts whose propulsion plant consists of two or more sources of power (i.e. electric motor and internal or external combustion engines) complying with the requirements of Pt E, Ch 12.

The notation is completed, in brackets, with the indication of the functional mode, i.e.:

- Parallel mode;
- Electric motor and shaft generator mode;
- Other modes, to be defined.

6.13 REMOTE SURVEYABLE YACHT (REMOTE)

6.13.1
The additional class notation **REMOTE** is assigned to yachts complying with the requirements given in Pt F, Ch 13 to facilitate the execution of remote surveys described in Ch 2, App 7.

6.14 Wind Assisted Propulsion System (WAPS)

6.14.1 The additional class notation **Wind Assisted Propulsion System (WAPS)** is assigned to yachts equipped with wind assisted propulsion system according to Pt F, Ch 14.

A Wind Assisted Propulsion System (WAPS) is a mechanical means able to convert the kinetic energy of the wind into thrust or electrical power for the propulsion of yacht to reduce the fuel consumption and the GHG emissions from the internal combustion engines. Wind assisted propulsion systems has to be certified.

Depending on the available effective power of the Wind Assisted propulsion Systems installed on board - calculated according to IMO MEPC.1/Circ.896, as amended - the WAPS notation is assigned as follows:

- WAPS-A (Auxiliary) when the available effective power of the Wind Assisted propulsion Systems is equal or less than 15% of the propulsion
- WAPS-H (Hybrid) when the available effective power of the Wind Assisted propulsion Systems is more than 15% and equal or less than 60% of the propulsion power
- WAPS-M (Main) when the available effective power of the Wind Assisted propulsion Systems is more than 60% of the propulsion power.

The Wind assisted propulsion systems may be based on different technologies (e.g. sails, wing-sails, kite-sails, flettner rotors, wind turbines) and the WAY notation may be completed with the commercial denomination of the technology identifying the type of installation, as follows:

- WAY-A-xxxxxx
- WAY-H-xxxxxx
- WAY-M-xxxxxx

where xxxxxx may be, for example, "Ventifoil", "Rotor", "Dyna Rigg".

6.15 Planned Maintenance System (PMS)

6.15.1 The additional class notation PMS is assigned to yachts provided with a planned maintenance system and complying with the requirements of Pt F, Ch 15, Sec 1.

6.16 CYBER YACHT

6.16.1 The additional class notation **CYBER YACHT** is assigned to yachts provided with Cyber secure systems complying with the requirements of Pt F, Ch 16, Sec 1.

6.17 DIGITAL YACHT

6.17.1 The additional class notation **DIGITAL YACHT** is assigned to yachts provided with Digital systems complying with the requirements of Pt F, Ch 17, Sec 1.

6.18 BIOFUEL YACHT

6.18.1 The additional class notation **BIOFUEL YACHT** is assigned to yachts fuelled by biofuels complying with the requirements of Pt F, Ch 18, Sec 1.

6.19 GAS FUELLED YACHT

6.19.1 The additional class notation **GAS FUELLED YACHT** is assigned to yachts fuelled by gas complying with the requirements of Pt F, Ch 19, Sec 1.

6.20 LPG or NH_3 FUELLED YACHT

6.20.1 The additional class notation **LPG FUELLED YACHT** or **NH_3 FUELLED YACHT** is assigned to yachts fuelled by LPG or NH_3 complying with the requirements of Pt F, Ch 20, Sec 1.

6.21 HYDROGEN FUELLED YACHT

6.21.1 The additional class notation **HYDROGEN FUELLED YACHT** is assigned to yachts fuelled by hygrogen complying with the requirements of Pt F, Ch 21, Sec 1.

6.22 METHYL or ETHYL ALCOHOL FUELLED YACHT

6.22.1 The additional class notation **METHYL ALCOHOL FUELLED YACHT** or **ETHYL ALCOHOL FUELLED YACHT** is assigned to yachts fuelled by methyl or ethyl alcohol complying with the requirements of Pt F, Ch 22, Sec 1.

6.23 BATTERY POWERED YACHT

6.23.1 The additional class notation **BATTERY POWERED YACHT** is assigned to yachts powered by batteries complying with the requirements of Pt F, Ch 23, Sec 1.

6.24 FUEL CELL POWERED YACHT

6.24.1 The additional class notation **FUEL CELL POWERED YACHT** is assigned to yachts powered by fuel cells complying with the requirements of Pt F, Ch 24, Sec 1.

6.25 RIG

6.25.1 The additional class notation **RIG**, is assigned to yachts with certified rig complying with the requirements of Pt F, Ch 25, Sec 1.

Chapter 2

ASSIGNMENT, MAINTENANCE, SUSPENSION AND WITHDRAWAL OF CLASS

SECTION 1 ASSIGNMENT OF CLASS

1 General

1.1 Main cases of assignment of class

1.1.1 Assignment of class

Class is assigned to a yacht upon a survey, with the associated operations, which is held in order to verify whether it is eligible to be classed on the basis of the Rules of The Society (see Ch 1, Sec 1, [1.3.2]). This may be achieved through:

- the completion of the new building, during which a survey has been performed; or
- the completion of the new building, during which the survey has been carried out according to IACS Pro-cedural Requirement PR 1B when the Society's class is assigned under double class or dual class regime with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR1A, when yachts change class from one QSCS Classification Society (see Note 1) to The Society or
- a survey carried out according to the IACS Procedural Requirement PR1B, when The Society 's class is added to a yacht already in class with another QSCS Classification Society, or
- a survey carried out according to the IACS Procedural Requirement PR1D, when yachts change class from one non-QSCS Classification Society (see Note 1) to The Society or is not classed at all.

Note 1: The obligations of the Procedural Requirements PR1A, and PR1B and PR1D apply as pertinent to QSCS Classification Societies.

1.1.2 Reassignment of class

Reassignment of class is that part of the process of classification consisting in all the steps aimed at issuing a Certificate of Classification to a yacht previously classed with The Society but which had the class withdrawn.

Four cases are considered for reassignment of class:

a) yacht in service classed by another QSCS Classification Society,

b) yacht in service not classed by another QSCS Classification Society,

c) yacht no longer in service since the withdrawal of the class by the Society,

d) yacht no longer in service since the withdrawal of the class by another Society, QSCS or not.

2 New building procedures

2.1 Yachts surveyed during construction

2.1.1

When a yacht is surveyed during construction, it is to comply with those requirements of the Rules which are in force and applicable depending on the class of the yacht, taking into account the provisions of Ch 1, Sec 1, [2.2].

2.1.2

The Society:

- approves the plans and documentation submitted as required by the Rules
- proceeds, if required, with the appraisal of the design of materials and equipment used in the construction of the yacht and their inspection at works
- carries out surveys or obtains appropriate evidence to satisfy itself that the scantlings and construction meet the Rule requirements in relation to the approved drawings
- attends tests and trials provided for in the Rules
- assigns the construction mark ✠, (refer to Ch 1, Sec 2, [3.2]).

2.1.3

The Society defines in specific Rules which materials and equipment used for the construction of yachts built under survey are, as a rule, subject to appraisal of their design and to inspection at works, and according to which particulars.

2.1.4

As part of his interventions during the yacht's construction, the Surveyor will:

- conduct an overall examination of the parts of the yacht covered by the Rules
- examine the construction methods and procedures when required by the Rules
- check selected items covered by the Rule requirements
- attend tests and trials where applicable and deemed necessary.

The Surveyor in charge is to be satisfied of the overall conditions of construction of the Shipyard, its capability and workmanship.

2.1.5 Use of materials, machinery, appliances and items

As a general rule, all materials, machinery, boilers, auxiliary installations, equipment, items etc. (generally referred to as "products") which are covered by the class and used or fitted on board yachts surveyed during construction are to be new and, where intended for essential services as defined in Ch 1, Sec 1, [1.2.1], tested or accepted by Society.

Second hand materials, machinery, appliances, and items may be used subject to the specific agreement of the Society and the Owner.

The requirements for the selection of materials to be used in the construction of the various parts of a yacht, the characteristics of products to be used for such parts and the checks required for their acceptance are to be as stated in Part C and Part D, as applicable, or in other Parts of the Rules or as specified on approved plans. In particular, the testing of products manufactured according to quality assurance procedures approved by The Society and the approval of such procedures are governed by the requirements of Pt D, Ch 1,Sec 1, [3] of the Rules.

2.1.6 Defects or deficiencies and their repair

The Society may, at any time, reject items found to be defective or contrary to Rule requirements or require supplementary inspections and tests and/or modifications, notwithstanding any previous certificates issued.

All repairs are subject to preliminary agreement with The Society. When the limits of tolerance for defects are specified in the Rules or by the Manufacturer, they are to be considered for repairs.

It is incumbent upon the Interested Party to notify The Society of any defects noted during the construction of the yacht and/or of any item not complying with the applicable requirements or which is, in any case, unsatisfactory. Proposals regarding remedial actions intended to be adopted to eliminate such defects or unsatisfactory items are to be submitted to The Society and, if accepted, carried out to the Surveyor's satisfaction.

2.1.7 Equivalence of Rule testing under certain conditions

Notwithstanding the provisions of [2.1.5], the Society may, at its discretion and subject to conditions and checks deemed appropriate, accept certain materials, appliances or machinery which have not been subjected to rule testing.

2.1.8 Equivalence of design approval by another QSCS Classification Society under certain conditions

The Society may, at its discretion and subject to conditions and checks deemed appropriate, accept the plans and documentation approved by another QSCS Classification Society, as far as classification is concerned and according to the principle of equivalence of Rules in Ch 1, Sec 1, [2.1].

2.1.9 Interim Certificate of Classification

Upon satisfactory completion of the survey during construction, the Surveyor issues to the Client an interim Certificate of Classification valid not more than 5 months. This certificate indicates the class notations. The certificate is issued with a letter where all outstanding conditions of class and significant memoranda are recorded; class notations requested by the shipyard and not assigned due to pending items are clearly indicated together with the relevant pending items. It is the shipyard's duty to provide the Owner with the interim Certificate of Classification and a copy of the letter.

2.1.10 Certificate of Classification

Upon satisfactory review of the survey reports, the Society issues to the Client the Certificate of Classification valid for the whole period of class. The certificate indicates the class notations. The Certificate of Classification may be provided directly to the Owner upon request, subject to written authorization from the shipyard. All out-standing conditions of class, significant memoranda and pending items for class notations not assigned are made available in the yacht status.

2.2 Other cases

2.2.1

When the procedure adopted does not comply with that detailed in [2.1] but the Society deems that it is acceptable for the assignment of class, the construction mark I is assigned in accordance with Ch 1, Sec 2, [3.2.3].

2.3 Documentation

2.3.1
Documentation relevant to the class applied for is to be submitted for the approval of the Society.

2.3.2
The design data, calculations and plans to be submitted are listed in the relevant chapters of the Rules.

The Society may also call for additional information according to the specific nature of the yacht to be classed.

The documentation requested in the various Chapters of the Rules in hard copy may, as an alternative, be submitted in electronic format to be agreed with the Society.

2.3.3
The documentation submitted to the Society is examined in relation to the class applied for in the request for classification.

Note 1: Should the Interested Party subsequently wish to have the class - including the service notation or navigation notation - granted to the yacht modified, plans and drawings are generally to be re-examined.

2.3.4
A copy of the submitted plans will be returned duly stamped, with remarks related to the compliance with the Rule requirements should the need arise.

2.3.5
As a rule, modifications of the approved plans regarding items covered by classification are to be submitted.

2.3.6
Design data to be submitted to the Society are to incorporate all information necessary for the assessment of the design of the yacht for the purpose of assignment of class. It is the responsibility of the Interested Party to ascertain that the design data are correct, complete and compatible with the use of the yacht.

2.3.7
Design calculations are to be provided, when called for, as supporting documents to the submitted plans.

2.3.8
Design data and calculations are to be adequately referenced. It is the duty of the Interested Party to ascertain that the references used are correct, complete and applicable to the design of the yacht.

2.3.9
The submitted plans are to contain all necessary information for checking the compliance with the requirements of the Rules.

2.3.10
In the case of conflicting information, submitted documentation will be considered in the following order of precedence: design data, plans, design calculations.

2.3.11
It is the responsibility of the Interested Party to ascertain that drawings used for the procurement, construction and other works are in accordance with the approved plans.

2.4 Assignment of Double Class to a yacht surveyed during construction by two Societies

2.4.1 Double Class
A double class yacht is one which is classed by two Societies, where each Society acts independently during construction.

2.4.2 General
The requirements from [2.1] to [2.3] apply also for the assignment of the Double Class to a new construction

2.4.3 Survey
The surveyor surveys the yacht to check that it complies with the requirements of Ch 3, Sec 1, [3.1].

2.5 Assignment of a Dual Class to a yacht surveyed during construction by two QSCS Classification Societies and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1B)

2.5.1 Dual Class

A dual class new building is one which is classed during construction by two Societies where each Society acts on behalf of the other Society in accordance with the trilateral agreement adopted by the two Societies and the shipyard. This agreement shall clearly define modalities such as submission of plans, rules to be applied, harmonizing and resolution of plan approval comments between societies.

2.5.2 Basic conditions

The Procedural Requirements for assigning dual class are applicable when none of the Societies which carried out the new construction technical review has issued its first Certificate of Classification (see Note 1).

Whenever the Societies are requested by a Shipyard/Owner to accept a new building into their class under dual class:

a) each Society is to share information and records related to new construction such as plan approval including following up and closing of comments imposed, surveys, inspection, witnesses and tests etc., to perform the surveys and verify compliance with the relevant requirements; and

b) each Society is to issue a certificate of classification for the vessel upon satisfactory completion of new construction survey process.

Note 1: "First Certificate of Classification" means either the Interim Certificate of Classification or full term Certificate of Classification or another document serving the same purpose.

2.5.3 General

The requirements from [2.1] to [2.3] are applied in accordance with the trilateral agreement referred to in [2.5.1].

2.5.4 Surveys

The surveyor surveys the yacht to check that it complies with the requirements of Ch 3, Sec 1, [3.2].

3 Yachts classed after construction

3.1 General

3.1.1

When an Owner applies to the Society for a yacht already in service to be admitted to class, the application will be processed differently depending on whether the yacht is:

- classed with a QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions, or
- classed with a QSCS Classification Society but not in full compliance with all applicable and relevant IACS Resolutions, or
- not classed with a QSCS Classification Society, or
- not classed at all.

3.2 Transfer to the Society's class of a yacht in service classed by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1A)

3.2.1 Documentation to be submitted and design assessment

As a rule, the minimum documentation to be supplied for filing purposes is listed hereinafter. The Society may carry out a design assessment on a case-by-case basis (additional documentation may be requested).

a) Main plans:
   1) general arrangement,
   2) capacity plan,
   3) loading manual, where required, which is to contain, as a minimum, loading cases, calculations of still water bending moments, and relevant documents, particulars of loading calculator and instruction booklet as per the Society's requirements, according to the case,
   4) hydrostatic curves and stability documentation, as applicable,
   5) damage stability calculations, where required.

b) Hull structure plans:
   1) midship section,
   2) scantling plans,
   3) profile and decks plan,
   4) shell expansion,
   5) watertight bulkheads, transverse and longitudinal (if any),
   6) rudder and rudder stock,
   7) hatch covers.

c) Machinery plans:
   1) engine room general arrangement,
   2) diagram of fuel- (transfer, service), bilge-, ballast-, lubricating oil-, cooling-, steam- and feed-, general service and starting compressed air piping,
   3) intermediate, thrust- and screw shafts,
   4) propeller,
   5) main engines, propulsion gears and clutch systems (or Manufacturer make, model and rating information),
   6) drawings of steering gear systems, piping and arrangements and steering gear Manufacturer make and model information,
   7) torsional vibration calculations, where required, as per Pt C, Ch 1, Sec 9 for yachts less than two years old.

d) Electrical installation plans and wiring diagrams:
   1) master plan of power distribution, lighting and emergency power circuits,
   2) single line diagram of networks and switchboards,
   3) location and arrangement of electrical equipment in hazardous areas.

e) Additional plans required in order to assign unattended machinery space notation:
   1) instrument and alarm list;
   2) fire alarm system,
   3) list of automatic safety functions (e.g. slowdowns, shutdowns, etc.);
   4) function testing plan.

f) Additional Documents required for approval of Alternative Design and Arrangements:
   1) Additional Documents required for approval of Alternative Design and Arrangements.

Alternative technical data may be accepted by Tasneef in lieu of specific items of the listed documentation not available at the time of the transfer of class.

Additional documentation may be required according to Flag Administration requirements.

3.2.2 Basic conditions of IACS Procedural Requirements No. 1A

This Procedural Requirement is applicable, unless stated otherwise, to all yachts of whatever type, restricted or unrestricted navigation.

The age of the yacht considered in the procedure for transfer of class is the age calculated from the date of de-livery to the "Date Request for class was received" in IACS Form G Part A - Survey Status Request.

The obligations of the Procedural Requirement continue to apply when a yacht's class is suspended by the losing Society and for 6 months following withdrawal of a yacht's class by the losing Society.

Whenever the Society is requested by an Owner to accept a yacht in service into class:

a) the relevant surveys specified in Ch 3, Sec 2, [1.1.2] are to be satisfactorily completed for entry into class;

b) for yachts less than 15 years of age, an Interim Certificate of Classification can be issued only after the Society has completed all overdue surveys and all overdue conditions of class previously issued against the yacht as specified to the Owner by the losing Society;

c) for yachts 15 years of age and over, an Interim Certificate of Classification can be issued only after the losing Society has completed all overdue surveys and all overdue conditions of class previously issued against the yacht;

d) any outstanding conditions of class are to be dealt with by their due dates;

e) the principles given in a), b) and c) above apply to any additional conditions of class issued against the yacht arising from surveys which were not included in the initial survey status provided to the Society by the losing Society

because the surveys were carried out in close proximity to the request for transfer of class. If received after the issuance of the Interim Certificate of Classification by the Society and overdue, such additional conditions of class are to be dealt with at the first port of call by the relevant Society depending on the age of the yacht;

f) copies of the plans listed in [3.2.1] are to be provided to the Society as a prerequisite to obtaining a full term Certificate of Classification. If the Owner is unable to provide all of the required plans, the losing Society is to be authorized by the Owner to transfer copies of such of these plans as it may possess directly to and upon request from the Society.

3.2.3 Conditions of IACS Procedural Requirement No. 1A, preventing issue of the Interim Certificate of Classification

Prior to issuing an Interim Certificate of Classification, Tasneef is to obtain:

a) from the Owner, a written request for transfer of class, containing an authorisation for the Society to obtain the current classification status from the losing Society; and

b) the current classification survey status from the Headquarters of the losing Society or one of its designated con-trol or management centers

If the Society does not receive the classification survey status from the losing Society within 3 working days from the request, the Society may utilize the losing Society's survey status information provided by the Owner and, after complying with the other relevant provisions of the Procedural Requirement, issue an Interim Certificate of Classification. In such cases the conditions in [3.2.2] are still applicable (a statement is normally included in the Interim Certificate of Classification for this purpose). The Society cannot issue an Interim Certificate of Classification, or other documents enabling the yacht to trade:

1) until all overdue surveys and all overdue conditions of class previously issued against the subject yacht, as specified to the Owner by the losing Society, have been completed and rectified either by the Society for yachts less than 15 years of age or by the losing Society for yachts 15 years of age and above;

2) until all relevant surveys specified in Ch 3, Sec 2, [1.1.2] have been satisfactorily completed; when facilities are not available in the first port of survey, an Interim Certificate of Classification may be issued to allow the yacht to undertake a direct voyage to a port where facilities are available to complete surveys required in Ch 3, Sec 2, [1.1.2]. In such cases the surveys specified in Ch 3, Sec 2, [1.1.2] are to be car-ried out to the maximum extent practicable at the first port of survey, but in no case less than the scope of annual hull surveys and machinery surveys as required in Ch 3, Sec 2, [1.1.2] b);

3) before giving the opportunity to the flag Administration to provide any further instructions within 3 working days, in compliance with the requirements of Art. 10.5 of the Regulation (EC) No 391/2009.

3.2.4 Limitation of IACS Procedural Requirement No. 1A for the Certificate of Classification

The validity of the Interim Certificate of Classification and the subsequent Certificate of Classification is subject to any outstanding conditions of class previously issued against the yacht being completed by the due date and as specified by the losing Society. Any outstanding conditions of class with their due dates are stated on the Survey Endorsement Sheets and yacht status when the full term Certificate of Classification is issued.

If additional information regarding overdue surveys or conditions of class is received from the losing Society after the Interim Certificate of Classification has been issued, these are to be dealt with at the first port of call by the Society for yachts less than 15 years of age or by the losing Society for yachts 15 years of age or over. If this is not accomplished, the Interim Certificate of Classification is withdrawn immediately unless the Owner agrees to proceed directly, without further trading, to a suitable port where any overdue surveys or overdue conditions of class are to be carried out by the relevant Society based on the age of the yacht.

3.2.5 Surveys

The Surveyor:

a) checks that the outcome of the design assessment (if any), survey instructions and losing Society's yacht status are available,

b) surveys the yacht to check that it complies with the outcome of the design assessment (if any) and with the requirements of Ch 3, Sec 2, [1.1.2].

3.2.6 Interim Certificate of Classification

Upon satisfactory completion of the survey for assignment of class, the Surveyor issues to the Owner an interim Certificate of Classification valid not more than 5 months, provided that the conditions in [3.2.2] to [3.2.5] are met. This certificate indicates the class notations. The certificate is issued with a Survey Endorsement Sheet where all outstanding conditions of class and significant memoranda are recorded; class notations requested by the Owner and not assigned due to pending items are clearly indicated together with the relevant pending items.

3.2.7 Certificate of Classification

Upon satisfactory review of the survey reports, the Society issues to the Owner the Certificate of Classification valid for the whole period of class, provided that the conditions in [3.2.2] to [3.2.5] are met. The certificate indicates the class notations. All outstanding conditions of class, significant memoranda and pending items for class notations not assigned are made available in the yacht status.

3.3 Transfer to the Society's class of a yacht surveyed during construction by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions, at yacht's delivery (IACS PR 1A)

3.3.1 Documentation to be submitted and design assessment

The requirements of [3.2.1] apply.

3.3.2 Basic conditions of IACS Procedural Requirement No. 1A

The Procedural Requirements for transfer of class at yacht's delivery (see Note 1) are applicable when the Socie-ty which carried out the new construction technical review and surveys (i.e. the losing Society) has issued its first Certificate of Classification (see Note 2).

Whenever the Society is requested by an Owner to accept a yacht into class at its delivery, the Society immedi-ately notifies the Owner in writing that:

a) any outstanding conditions of class are to be dealt with by their due dates;

b) copies of the plans listed in [3.2.1] are to be provided to the Society as a prerequisite to obtaining a full term Certificate of Classification. If the Owner is unable to provide all of the required plans, the Society requests that the Owner authorises the losing Society to transfer copies of such of these plans as it may possess directly to and upon request from the Society, with the advice that the losing Society will invoice the Society and the Society may, in turn, charge the associated costs to the Owner.

Note 1: "At yacht's delivery" means that the new construction survey process is completed and the yacht has not departed from the yard.

Note 2: "First Certificate of Classification" means either the Interim Certificate of Classification or full term Certificate of Classification or another document serving the same purpose.

3.3.3 Conditions of IACS Procedural Requirement No. 1A, preventing issue of the Interim Certificate of Classification

Prior to issuing an Interim Certificate of Classification on the date of the yacht's delivery, the Society is to obtain:

a) from the Owner, a written request for transfer of class at yacht's delivery, containing an authorisation for the Society to obtain a copy of the first Certificate of Classification from the losing Society; and

b) the first Certificate of Classification from the Headquarters of the losing Society or one of its designated control or management centres or from the attending Surveyor at the builder's yard, including any outstanding conditions of class and information normally contained in the classification status. If the Society does not receive the above documents from the losing Society on the date of the yacht's delivery, the Society may utilise the losing Society's said documents provided by the Owner and, after complying with the other relevant provisions of this Procedural Requirement, issue an Interim Certificate of Classification on the date of the yacht's delivery. In such cases, the conditions in [3.3.2] are still applicable (a statement is normally included in the Interim Certificate of Classification for this purpose).

The Society cannot issue an Interim Certificate of Classification, or other documents enabling the yacht to trade:

a) until all relevant surveys specified in Ch 3, Sec 2, [1.3.1] have been satisfactorily completed; and

b) before giving the opportunity to the flag Administration to provide any further instructions within 3 working days, in compliance with the requirements of Art. 10.5 of the Regulation (EC) No 391/2009.

3.3.4 Limitations of IACS Procedural Requirement No. 1A for the Certificate of Classification

The validity of the Interim Certificate of Classification and the subsequent full term Certificate of Classification issued by the Society is subject to any outstanding conditions of class previously issued against the yacht being completed by the due dates and as specified by the losing Society. Any outstanding conditions of class with their due dates and information normally contained in the classification status are to be clearly stated on the:

a) first Certificate of Classification or an attachment to the first Certificate of Classification and/or the Survey Endorsement Sheet available on board

b) survey status when the full term Certificate of Classifications issued.

3.3.5 Surveys

The Surveyor:

a) checks that the outcome of the design assessment (if any), survey instructions and the first Certificate of Classification or an attachment to the first Certificate of Classification and/or a class survey record from the losing Society are available,

b) surveys the yacht to check that it complies with the outcome of the design assessment (if any) and with the requirements of Ch 3, Sec 2, [1.3.1].

3.3.6 Interim Certificate of Classification

Upon satisfactory completion of the survey for assignment of class, the Surveyor issues to the Owner an Interim Certificate of Classification valid not more than 5 months, provided that the conditions in [3.3.2] to [3.3.5] are met. This certificate indicates the class notations.

The certificate is issued with a Survey Endorsement Sheet where all outstanding conditions of class and significant memoranda are recorded; class notations requested by the Owner and not assigned due to pending items are clearly indicated together with the relevant pending items.

3.3.7 Certificate of Classification

Upon satisfactory review of the survey reports, the Society issues to the Owner the Certificate of Classification valid for the whole period of class, provided that the conditions in [3.3.2] to [3.3.5] are met. The certificate indicates the class notations. All outstanding conditions of class, significant memoranda and pending items for class notations not assigned are made available in the yacht status.

3.4 Addition of the Society's class to a yacht in service classed by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1B)

3.4.1 Documentation to be submitted and design assessment

The requirements of [3.2.1] apply.

3.4.2 Basic conditions of IACS Procedural Requirement No. 1B

This Procedural Requirement is applicable, unless stated otherwise, to all yachts, with restricted or unrestricted navigation.

The obligations of the Procedural Requirement continue to apply when a yacht's class is suspended by the losing Society and for 6 months following withdrawal of a yacht's class by the losing Society.

Whenever the Society is requested by an Owner to accept a yacht in service already classed by another QSCS Classification Society into its class under double or dual class arrangement, the following applies:

a) the Society only accepts a yacht that is free from any overdue surveys or conditions of class;

b) the Owner is to inform the first Society of his request to the Society;

c) the Owner is to authorize the first Society to submit to the Society its current classification status and documents as listed in Annex 3 of IACS PR1 Annex - "Content of Vessel's History Report Regarding Class Items" for information and use by the Society in conducting its assignment of class surveys;

d) when the Owner decides to leave the double or dual class arrangement and prior to withdrawing from the class of either of the Societies, he is to inform the Societies of his intended actions;

e) when the Owner is advised that one of the Societies involved in double or dual class arrangement is suspending or withdrawing class, he is to inform the remaining Society of the action taken by the other Society without delay;

f) copies of the plans listed in [3.2.1] are to be provided to the Society as a prerequisite to obtaining a full term Certificate of Classification. If the Owner is unable to provide all of the required plans, the first Society is to be authorized by the Owner to transfer copies of such of these plans as it may possess directly to and upon request from the Society.

3.4.3 Conditions of IACS Procedural Requirement No. 1B, preventing issue of the Interim Certificate of Classification

Prior to issuing an Interim Certificate of Classification the Society is to:

a) obtain from the Owner, a written application for entry into the Society's class, containing an authorization for the Society to obtain the current classification status from the first Society;

b) obtain the first Certificate of Classification from the Headquarters of the first Society or from one of its designated control or management centres or from the attending Surveyor at the yard of the builders, including any outstanding conditions of class and information normally contained in the classification status; and

c) carry out and satisfactorily complete all relevant surveys specified in Ch 3, Sec 2, [1.2].

3.4.4 Limitations of IACS Procedural Requirement No. 1B for the Certificate of Classification

The validity of the Interim Certificate of Classification and the subsequent Certificate of Classification is subject to any outstanding conditions of class previously issued against the yacht being completed by the due dates and as specified by the first Society. Any outstanding conditions of class with their due dates are stated on the Survey Endorsement Sheets and yacht status when the full term Certificate of Classification is issued.

3.4.5 Surveys

The Surveyor:

a) checks that the outcome of the design assessment (if any), survey instructions and first Society's yacht status are available,

b) surveys the yacht to check that it complies with the outcome of the design assessment (if any) and with the requirements of Ch 3, Sec 2, [1.1.2].

3.4.6 Interim Certificate of Classification

Upon satisfactory completion of the survey for assignment of class, the Surveyor issues to the Owner an Interim Certificate of Classification valid not more than 5 months, provided that the conditions in [3.4.2] to [3.4.5] are met. This certificate indicates the class notations. The certificate is issued with a Survey Endorsement Sheet where all outstanding conditions of class and significant memoranda are recorded; class notations requested by the Owner and not assigned due to pending items are clearly indicated together with the relevant pending items.

3.4.7 Certificate of Classification

Upon satisfactory review of the survey reports, the Society issues to the Owner the Certificate of Classification valid for the whole period of class, provided that the conditions in [3.4.2] to [3.4.5] are met. The Certificate indicates the class notations.

All outstanding conditions of class, significant memoranda and pending items for class notations not assigned are made available in the yacht status.

3.5 Addition of the Society's class to a yacht surveyed during construction by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions, at the yacht's delivery (IACS PR 1B)

3.5.1 Documentation to be submitted and design assessment

The requirements of [3.2.1] apply.

3.5.2 Basic conditions of IACS Procedural Requirement No. 1B

The Procedural Requirements for adding class at yacht's delivery are applicable when The Society which carried out the new construction technical review and surveys (i.e. the first Society) has issued its first Certificate of Classification (see Note 2 to item [3.3.2]). Unless stated otherwise, the provisions apply to yachts of whatever type, restricted or unrestricted service.

Whenever the Society is requested by an Owner to accept a yacht already classed by another QSCS Classifica-tion Society (the first Society) into its class under double or dual class arrangement at yacht's delivery, the fol-lowing applies:

a) the Owner is to inform the first Society of his request to the Society;

b) the Owner is to authorize the first Society to submit to the Society its Certificate of Classification;

c) when the Owner decides to leave the double or dual class arrangement and prior to withdrawing from the class of either of the Societies, he is to inform the Societies of his intended actions;

d) when the Owner is advised that one of the Societies involved in double or dual class arrangement is suspending or withdrawing class, he is to inform the remaining Society of the action taken by the other Society without delay;

e) copies of the plans listed in [3.2.1] are to be provided to the Society as a prerequisite to obtaining a full term Certificate of Classification. If the Owner is unable to provide all of the required plans, the Society requests that the Owner authorize the first Society to transfer copies of such of these plans as it may possess directly to and upon request from the Society, with the advice that the first Society will invoice the Society and the Society may, in turn, charge the associated costs to the Owner.

3.5.3 Conditions of IACS Procedural Requirement No. 1B, preventing issue of the Interim Certificate of Classification

Prior to issuing an Interim Certificate of Classification on the date of the yacht's delivery, the Society is:

a) obtain from the Owner, a written request for entry into the Society's class at yacht's delivery, containing an authorization for the Society to obtain a copy of the first Certificate of Classification from the first Society; and

b) obtain the first Certificate of Classification from the Headquarters of the first Society or one of its designated control or management centres or from the attending Surveyor at the builder's yard, including any outstanding conditions of class and information normally contained in the classification status;

c) carry out and satisfactorily complete all relevant surveys in Ch 3, Sec 2, [2.2.1].

3.5.4 Limitations of IACS Procedural Requirement No. 1B for the Certificate of Classification

Prior to final entry into its class, the Society is obligated to obtain plans and information in accordance with the requirements of [3.2.1].

3.5.5 Surveys

The Surveyor:

a) checks that the outcome of the design assessment (if any), survey instructions and the first Certificate of Classification or an attachment to the first Certificate of Classification and/or a class survey record from the first Society are available,

b) b)surveys the yacht to check that it complies with the outcome of the design assessment (if any) and with the requirements of Ch 3, Sec 2, [2.2.1].

3.5.6 Interim Certificate of Classification

Upon satisfactory completion of the survey for assignment of class, the Surveyor issues to the Owner an interim Certificate of Classification valid not more than 5 months, provided that the conditions in [3.5.2] to [3.5.5] are met. This certificate indicates the class notations.

The certificate is issued with a Survey Endorsement Sheet where all outstanding conditions of class and significant memoranda are recorded; class notations requested by the Owner and not assigned due to pending items are clearly indicated together with the relevant pending items.

3.5.7 Certificate of Classification

Upon satisfactory review of the survey reports, the Society issues to the Owner the Certificate of Classification valid for the whole period of class, provided that the conditions in [3.5.2] to [3.5.5] are met. The certificate indicates the class notations.

All outstanding conditions of class, significant memoranda and pending items for class notations not assigned are made available in the yacht status.

3.6 Yachts in service classed with a QSCS Classification Society but not in full compliance with all applicable and relevant IACS Resolutions or not classed with a QSCS Classification Society or not classed at all (PR1D)

3.6.1 General

In the case of a yacht not classed with a QSCS Classification Society, or not classed at all, the requirements of [3.6.2] to [3.6.10] apply.

3.6.2 Documentation to be submitted and design assessment

As a rule, the minimum documentation to be supplied is listed hereinafter. The Society will carry out a plan ap-praisal before the Interim Certificate of Classification is issued:

a) Main plans:

1) general arrangement,

2) capacity plan,

3) loading manual, where required, which is to contain, as a minimum, loading cases, calculations of still water bending moments, and relevant documents, particulars of loading calculator and instruction booklet as per the Society's requirements, according to the case,

4) hydrostatic curves and stability documentation, as applicable

5) damage stability calculations, where required.

b) Hull structure plans:
   1) midship section,
   2) scantling plans,
   3) profile and decks plan,
   4) shell expansion.
   5) watertight bulkheads, transverse and longitudinal (if any),
   6) rudder and rudder stock,
   7) hatch covers.

c) Machinery plans:
   1) engine room general arrangement,
   2) diagram of fuel- (transfer, service), bilge-, ballast-, lubricating oil-, cooling-, steam- and feed-, general service and starting compressed air piping,
   3) intermediate, thrust- and screw shafts,
   4) propeller,
   5) main engines, propulsion gears and clutch systems (or Manufacturer make, model and rating information)
   6) drawings of steering gear systems, piping and arrangements and steering gear Manufacturer make and model information,
   7) torsional vibration calculations, where required, as per Pt C, Ch 1, Sec 6; for yachts less than two years old,

d) Electrical installation plans and wiring diagrams:
   1) master plan of power distribution, lighting and emergency power circuits,
   2) single line diagram of networks and switchboards,
   3) location and arrangement of electrical equipment in hazardous areas.

e) Additional plans required in order to assign unattended machinery space notation:
   1) instrument and alarm list,
   2) fire alarm system,
   3) list of automatic safety functions (e.g. slowdowns, shutdowns, etc.),
   4) function testing plan.

f) Fire protection
   1) Structural Fire Protection including Means of escape and Ventilation
   2) Fire Fighting and Fire detection Systems,
   3) Fire Control Plan.

Alternative technical data may be accepted by the Society in lieu of specific items of the listed documentation not available at the time of the transfer of class.

Additional documentation may be required according to Flag Administration requirements.

In cases where the vessel has been previously classed by the Society, the submission of the plans may be spe-cially considered subject to confirmation that no alteration or modification has been made to the vessel since the withdrawal of the class by the Society.

In cases where the vessel has been previously classed by the Society or another QSCS Society, the extent of the plan appraisal may be specially considered subject to confirmation that no alteration or modification has been made to the vessel.

3.6.3 Basic conditions of IACS Procedural Requirement PR1D

IACS Procedural Requirement PR1D contains procedures and requirements pertaining to class entry of yachts not subject to IACS Procedural Requirement PR1A or IACS Procedural Requirement PR1B and is applicable, un-less stated otherwise, to yachts in service not classed with a QSCS Classification Society or not classed at all, of whatever type, restricted or unrestricted service.

Cases concerning yachts to which the class is reassigned are to be dealt with according to [5].

Whenever the Society is requested by an Owner to accept a yacht in service into class:

a) the relevant surveys specified in Ch 3, Sec 2 [1.6.2] are to be satisfactorily completed for entry into class;

b) the copies of the plans listed [3.6.2] are to be provided to the gaining Society as a prerequisite to obtaining an Interim or Full Term Certificate of Class

c) required plan appraisal is to be satisfactorily completed for entry into class.

3.6.4 Conditions of IACS Procedural Requirement PR1D, preventing issue of the Interim Certificate of Classification

Prior to issuing an Interim Certificate of Classification, Tasneef is to obtain a written request to class the vessel from the Owner.

The Society cannot issue an Interim Certificate of Classification, or other documents enabling the yacht to trade under its classification:

a) until all required surveys specified in Ch 3, Sec 2 [3.1.2] have been completed,

b) until the appraisal of the plans listed in [3.6.2] as required by the Society to verify compliance with its applicable classification Rules, has been carried out. Where issues remain outstanding, the Society may impose a condition of class for a limited period in accordance with Ch 2, Sec 2 [2.10],

c) before giving the opportunity to the flag Administration to provide any further instructions within 3 working days, in compliance with the requirements of Art. 10.5 of Regulation (EC) No 391/2009.

3.6.5 Surveys

The Surveyor:

a) checks that the outcome of the plan appraisal and survey instructions are available,

b) surveys the yacht to check that it complies with the outcome of the plan appraisal and with the requirements of Ch 3, Sec 2, [3.1.2],

c) attends tests and trials provided for in the Rules.

3.6.6 Interim Certificate of Classification

Upon satisfactory completion of the survey for assignment of class, the Surveyor issues an Interim Certificate of Classification to the Owner, valid for not more than 5 months. This certificate indicates the class notations.

The certificate is issued with a Survey Endorsement Sheet where all outstanding conditions of class and significant memoranda are recorded; class notations requested by the Owner and not assigned due to pending items are clearly indicated together with the relevant pending items.

3.6.7 Certificate of Classification

Upon satisfactory review of the survey reports, the Society issues the Certificate of Classification to the Owner, valid for the whole period of class. The certificate indicates the class notations.

All outstanding conditions of class, significant memoranda and pending items for class notations not assigned are made available in the yacht status.

3.6.8 Equivalence criterion

Where appropriate within reasonable limits, a proven service record of satisfactory performance during a period of adequate length may be used as a criterion of equivalence. Special consideration will be given to yachts of recent construction.

3.6.9 Additional service and/or class notation

For installations or equipment covered by additional service and/or class notations, the Society will determine the documentation to be submitted.

3.6.10 Other documentation

In addition, the Society may base its judgment upon documentation such as certificates issued or accepted by the former Classification Society, if any, and statutory certificates issued by the flag Administration or by a recognized organization on its behalf; moreover, other documents and/or plans may be specifically required to be supplied to the Society in individual cases.

4 Date of initial classification

4.1 Definitions

4.1.1 Date of build

a) For new construction:

for a new building the date of build is the year, month and day at which the new construction survey process is completed.

Where there is a substantial delay between the completion of the construction survey process and the yacht commencing active service, the date of commissioning may also be specified.

b) After modifications:

after modifications are completed, the "date of build" remains assigned to the yacht.

Where a complete replacement or addition of a major portion of the yacht (see Note 1) is involved, the following applies:

1) the "date of build" associated with each major portion of the yacht is indicated on the Certificate of Classification where it has been agreed that the newer structure is on a different survey cycle;

2) survey requirements are based on the "date of build" associated with each major portion of the yacht;

3) survey due dates may be aligned, where appropriate.

Note 1: For example, a major portion of the yacht may include a complete forward or after section, a complete block of deck structure of a yacht or a structural modification of a single hull to a double hull yacht.

4.1.2 Date of initial classification for new buildings

As a general rule, for new buildings the date of initial classification coincides with the date of build.

4.1.3 Date of initial classification for existing yachts

In principle, for existing yachts the date of initial classification is the date of completion of the admission to class survey.

4.1.4 Period of class

The assigned period of class is never to exceed five (5) years. The 5 year period is granted only upon completion of the new building procedure and, for yachts classed after construction, upon satisfactory outcome of a survey with the scope of a renewal survey. If a yacht classed after construction was previously classed with a QSCS Classification Society [3.2], the assigned period of class is never to go beyond the due date of the renewal survey assigned by the previous Society.

5 Reassignment of class

5.1 Yachts in service classed by QSCS Classification Society

5.1.1 Documentation to be submitted and design assessment

The requirements of [3.2.1] apply.

5.1.2 Conditions, Surveys and Certificate of Classification

The requirements of [3.2.2] to [3.2.7] apply.

5.2 Yachts in service not classed by QSCS Classification Society

5.2.1 Documentation to be submitted and design assessment

The requirements of [3.6.2] apply.

5.2.2 Conditions, Surveys and Certificate of Classification

The requirements of [3.6.3] to [3.6.10] apply.

5.3 Yachts in service not classed by a QSCS Classification Society, but previously classified by a QSCS Classification Society

5.3.1 General

The following two cases are considered:

a) the date of the class withdrawal, by the last QSCS Classification Society, falls within the time window of six months counted from the date of the classification request: the provisions of [5.1] apply;

b) the date of the class withdrawal, by the last QSCS Classification Society, does not fall within the time window of six months counted from the date of the classification request: the provisions of [5.2] apply

5.4 Yachts no longer in service since class withdrawal by the Society

5.4.1 General

This paragraph is applicable, based on the premise that after the class was withdrawn by the Society, the yacht:.

- never resumed its trade
- has not been classified by any other Classification Society.

5.4.2 Conditions, Surveys and Certificate of Classification

The requirements of Sec 3, [1.4] apply.

5.5 Yachts no longer in service since class withdrawal by a QSCS Classification Society or by a non-QSCS Classification Society

5.5.1 Documentation to be submitted and design assessment

The requirements of [3.6.2] apply.

5.5.2 Conditions, Surveys and Certificate of Classification

The requirements of [3.6.3] to [3.6.10] apply.

6 Double or dual class procedure

6.1 Definitions

6.1.1 Double class

A double class yacht is an existing one which is classed by two Societies, where each one acts independently when the yacht is in service.

6.1.2 Dual class

A dual class yacht is an existing one which is classed by two Societies and

a) each Society acts on behalf of the other Society in accordance with the bilateral agreement adopted by the two Societies. This agreement shall clearly define the scope of work of each Society;

b) each Society is to review whether the work undertaken by other Society on its behalf has been completed as agreed.

6.2 Procedures

6.2.1 The procedures of admission to class of a yacht already classed with another QSCS Classification Society under double or dual class arrangement are those indicated in [3.4] and [3.5].

SECTION 2 MAINTENANCE OF CLASS

1 General principles of surveys

1.1 Survey types

1.1.1 Classed yachts are submitted to surveys for the maintenance of class. These surveys include the class renewal survey, intermediate survey, bottom survey (either survey in dry condition or in-water survey), tailshaft survey, boiler survey, and surveys for the maintenance of additional class notations, where applicable.

Such surveys are carried out at the intervals and under the conditions laid down in this Section. In addition to the above periodical surveys, yachts are to be submitted to occasional surveys whenever the circumstances so require; refer to [11].

1.1.2 The different types of periodical surveys are summarised in Tab 1. The intervals at which the periodical surveys are carried out are given in the items referred to in the second column of Tab 1. The relevant extent and scope are given in Chapter 3, while surveys related to additional class notations are given in Chapter 4.

Where there are no specific survey requirements for additional class notations assigned to a yacht, equipment and/or arrangements related to these additional class notations are to be examined, as applicable, to the Surveyor's satisfaction at each class renewal survey for the class.

The surveys are to be carried out in accordance with the relevant requirements in order to confirm that the hull, machinery, equipment and appliances comply with the applicable Rules and will remain in satisfactory condition based on the understanding and assumptions mentioned in Ch 1, Sec 1, [3.3].

Where the conditions for the maintenance of class and additional class notations are not complied with, the class and/or the additional class notations as appropriate will be suspended and/or withdrawn in accordance with the applicable Rules given in Sec 3.

Note 1: It is understood that requirements for surveys apply to those items that are prescribed by the Rules or, even if not prescribed, are fitted on board.

1.1.3 Unless specified otherwise, any survey other than bottom survey and tailshaft survey may be effected by carrying out partial surveys at different times to be agreed upon with the Society, provided that each partial survey is adequately extensive. The splitting of a survey into partial surveys is to be such as not to impair its effectiveness.

1.2 Change of periodicity, postponement or advance of surveys

1.2.1 The Society reserves the right, after due consideration, to change the periodicity, postpone or bring forward surveys, taking into account particular circumstances.

1.2.2 When a survey becomes overdue during a voyage, the following applies:

a) In the case of a class renewal survey, the Society may, under exceptional circumstances, grant an extension to allow for completion of this survey provided there is documented agreement to such an extension prior to the expiry date of the Certificate of Classification, adequate arrangements have been made for the attendance of the Surveyor at the first port of call and the Society is satisfied that there is technical justification for such an extension. Such an extension will be granted only until arrival at the first port of call after the expiry date of the Certificate of Classification.

b) In the case of annual and intermediate surveys, no postponement is granted. Such survey is to be completed within its prescribed window; see [2.1.3]

c) In the case of all other periodical surveys and conditions of class, extension of class may be granted until the arrival of the yacht at the port of destination.

Table 1 : List of Periodical Surveys

Type of Survey	Reference in this Section	Reference to scope of survey
Class renewal - hull	[4]	Ch 3, Sec 5
Class renewal - machinery	[4]	Ch 3, Sec 5

Type of Survey	Reference in this Section	Reference to scope of survey
Annual - hull	[5.1]	Ch 3, Sec 3
Annual - machinery	[5.1]	Ch 3, Sec 3
Intermediate - hull	[6.1]	Ch 3, Sec 4
Intermediate - machinery	[6.1]	Ch 3, Sec 4
Bottom - dry condition	[7.1]	Ch 3, Sec 6
Bottom - in water	[7.1]	Ch 3, Sec 6
Tailshaft - complete	[8.1]	Ch 3, Sec 7
Tailshaft - modified	[8.1]	Ch 3, Sec 7

1.3 Extension of scope of survey

1.3.1 The Society and/or its Surveyors may extend the scope of the provisions in Chapter 3 and Chapter 4, which set forth the technical requirements for surveys, whenever and so far as considered necessary, or modify them in the case of special yachts or systems.

1.3.2 The extent of any survey also depends upon the condition of the yacht and its equipment. Should the Surveyor have any doubt as to the maintenance or condition of the yacht or its equipment, or be advised of any deficiency or damage which may affect the class, then further examination and testing may be conducted as considered necessary.

1.4 General procedure of survey

1.4.1 The general procedure of survey consists in:

- an overall examination of the parts of the yacht covered by the Rule requirements
- checking selected items covered by the Rule requirements
- attending tests and trials where applicable and deemed necessary by the Surveyor.

1.4.2 The Society's survey requirements cannot be considered as a substitute for specification and acceptance of repairs and maintenance, which remain the responsibility of the Owner.

1.4.3 In accordance with the provisions of Ch 1, Sec 1, [3.1.4], the Society will, at the request of the Owner, apply the regulations of Administrations concerning the scope and periodicity of surveys when they differ from those laid down in Part A.

1.4.4 During the surveys, the Surveyor does not check that spare parts are kept on board, maintained in working order, or suitably protected and lashed.

1.4.5 As a general rule, all materials, machinery, boilers, auxiliary installations, equipment, items etc. (generally referred to as "products") which are covered by the class and used or fitted on board yachts inspected by the Society during surveys after construction are to be new and, where intended for essential services as defined in Ch 1, Sec 1, [1.2.1], tested by the Society.

Second hand materials, machinery, appliances and items may be used subject to the specific agreement of the Society and the Owner.

The requirements for the selection of materials to be used in the construction or repair of the various parts of existing yachts, the characteristics of products to be used for such parts and the checks required for their acceptance are to be as stated in Part C and Part D, as applicable, or in other Parts of the Rules or as specified on approved plans. In particular, the testing of products manufactured according to quality assurance procedures approved by the Society and the approval of such procedures are governed by the requirements of Pt D, Ch 1, Sec 1, [3].

1.5 Appointment of another Surveyor

1.5.1 In compliance with the provisions of Ch 1, Sec 1, [2.5.1], should a disagreement arise between the Owner and the Surveyor during a survey, the Society may, at the request of the Owner, designate another Surveyor.

2 Definitions and procedures related to surveys

2.1 General

2.1.1 Period of class

Period of class means the period starting either from the date of the initial classification, see Sec 1, [5], or from the credited date of the last class renewal survey, and expiring at the limit date assigned for the next class renewal survey.

2.1.2 Anniversary date

Anniversary date means the day of the month of each year in the period of class which corresponds to the expiry date of the period of class.

2.1.3 Survey time window

Survey time window, or more simply window, mean the fixed period during which annual and intermediate surveys are to be carried out.

2.1.4 Overdue surveys

Each periodical survey is assigned a limit date specified by the relevant requirements of the Rules (end of survey interval or end date of window) by which it is to be completed.

A survey becomes overdue when it has not been completed by its limit date.

Examples:

- Anniversary date: 15th April

  The 2000 annual survey can be validly carried out from 16th January 2000 to 15th July 2000. If not completed by 15th July 2000, the annual survey becomes overdue.
- Last bottom survey 20th October 2000 (periodicity 2.5 years, with a maximum interval between successive examinations not exceeding 3 years)

  The next bottom survey is to be carried out before 20th October 2003. If not completed by 20th October 2003, the bottom survey becomes overdue.

2.1.5 Conditions of class

A condition of class is a requirement to the effect that specific measures, repairs and/or surveys are to be carried out within a specific time limit in order to retain classification. A condition of class is pending until it is cleared. Where it is not cleared by its limit date, the condition of class is overdue.

2.1.6 Memoranda

Those defects and/or deficiencies which do not affect the maintenance of class and which may therefore be cleared at the Owner’s convenience and any other information deemed noteworthy for the Society’s convenience are indicated as memoranda. Memoranda are not to be regarded as conditions of class.

2.1.7 Exceptional circumstances

EExceptional circumstances' means unavailability of drydocking facilities; unavailability of repair facilities; unavailability of essential materials, equipment or spare parts; or delays incurred by action taken to avoid severe weather conditions.

2.1.8 Force Majeure

'Force Majeure' means damage to the yacht; unforeseen inability of the Society to attend the yacht due to government restrictions on right of access or movement of personnel; unforeseeable delays in port; acts of war; or other force majeure.

2.1.9 Remote surveys

Remote Survey is a process of verifying that a yacht and its equipment are in compliance with the Rules where the verification is undertaken, or partially undertaken, without attendance on board by a Surveyor.

Note 1: Remote classification activities not requiring a survey, such as some administrative tasks, are not to be consid-ered as remote surveys.

2.2 Terminology related to hull survey

2.2.1 Ballast tanks

A ballast tank means a tank that is used primarily for saltwater ballast.

2.2.2 Spaces

Spaces are separate compartments including holds, tanks, cofferdams, decks and the outer hull.

2.2.3 Overall survey

An overall survey is a survey intended to report on the overall condition of the hull structure and determine the extent of additional close-up surveys.

2.2.4 Close-up survey

A close-up survey is a survey where the details of structural components are within the close visual inspection range of the Surveyor, i.e. normally within reach of hand.

2.2.5 Transverse section

A transverse section includes all longitudinal members contributing to longitudinal hull girder strength, such as plating, longitudinals and girders at the deck, side shell, bottom, inner bottom, longitudinal bulkheads, as well as relevant longitudinals, as applicable for the different yachts. For a transversely framed yacht, a transverse section includes adjacent frames and their end connections in way of transverse sections.

2.2.6 Representative tanks or spaces

Representative tanks or spaces are those which are expected to reflect the condition of other tanks or spaces of similar type and service and with similar corrosion prevention systems. When selecting representative tanks or spaces, account should be taken of the service and repair history on board and identifiable critical structural areas and/or suspect areas.

2.2.7 Renewal thickness *(1/1/2017)*

Renewal thickness (t_{ren}) is the minimum allowable thickness, in mm, below which renewal of structural members is to be carried out.

2.2.8 Substantial corrosion

Substantial corrosion is an extent of corrosion such that assessment of the corrosion pattern indicates a wastage in excess of 75% of allowable margins, but within acceptable limits.

2.2.9 Suspect areas

Suspect areas are locations showing substantial corrosion and/or considered by the Surveyor to be prone to rapid wastage.

2.2.10 Critical Structural Area

Critical Structural Areas are locations which have been identified from calculations to require monitoring and/or which, from the service history of the subject yacht or from similar or sister yachts (if available), have been identified as sensitive to cracking, buckling or corrosion which would impair the structural integrity of the yacht.

2.2.11 Corrosion Prevention System

A Corrosion Prevention System is normally considered a full hard protective coating.

Hard Protective Coating is usually to be epoxy coating or equivalent. Other coating systems which are neither soft nor semi-hard coatings may be considered acceptable as alternatives provided that they are applied and maintained in compliance with the Manufacturer's specifications.

2.2.12 Coating condition

Coating condition is defined as follows:

- good: condition with only minor spot rusting
- fair: condition with local breakdown at edges of stiffeners and weld connections and/or light rusting over 20% or more of areas under consideration, but less than as defined for poor condition
- poor: condition with general breakdown of coating over 20% or more of areas or hard scale at 10% or more of areas under consideration.

2.2.13 Prompt and Thorough Repair

A Prompt and Thorough Repair is a permanent repair completed at the time of survey to the satisfaction of the Surveyor, therein removing the need for the imposition of any associated condition of class.

2.2.14 Special consideration

Special consideration or specially considered (in connection with close-up surveys and thickness measurements) means sufficient close-up inspection and thickness measurements are to be taken to confirm the actual average condition of the structure under the coating.

2.2.15 Pitting corrosion

Pitting corrosion is defined as scattered corrosion spots/areas with local material reductions which are greater than the general corrosion in the surrounding area.

2.2.16 Edge corrosion

Edge corrosion is defined as local corrosion at the free edges of plates, stiffeners, primary support members and around openings.

2.2.17 Grooving corrosion

Grooving corrosion is typically local material loss adjacent to weld joints along abutting stiffeners and at stiffener or plate butts or seams.

2.2.18 Air pipe heads

Air pipe heads installed on exposed decks are those extending above the deck or superstructure decks.

2.2.19 Remote Inspection Technique

Remote Inspection Technique (RIT) is a means of survey that enables examination of any part of the structure without the need for direct physical access of the Surveyor. Remote Inspection Technique may include the use of unmanned robot arm, Remotely Operated Vehicles (ROV), unmanned aerial vehicles/drones or other means acceptable to the Society.

2.3 Procedural requirements for thickness measurements

2.3.1 Control of the process

When required as per the scope of surveys defined below, thickness measurements are normally to be carried out under the responsibility of the Owner, in the presence of the Surveyor.

The thickness measurements required, if not carried out by the Society itself are to be witnessed by a Surveyor of the Society. The Surveyor is to be on board to the extent necessary to control the process.

This also applies to thickness measurements taken during voyages. The attendance of the Surveyor will be recorded.

Also refer to IACS Recommendation no. 77 "Guidelines for the Surveyor on how to control the thickness measurement process".

2.3.2 Survey meeting

Prior to commencement of the intermediate and class renewal surveys, a meeting is to be held between the attending Surveyor(s), the master of the yacht or an appropriately qualified representative appointed by the master or Company, the Owner's representative(s) in attendance and the thickness measurement firm's representative(s) so as to ensure the safe and efficient execution of the surveys and thickness measurements to be carried out on board.

Communication with the thickness measurement operator(s) and Owner's representative(s) is to be agreed during the meeting, with respect to the following:

a) reporting of thickness measurements on a regular basis to the attending Surveyor

b) prompt notification to the Surveyor in the case of following findings:

   1) excessive and/or extensive corrosion or pitting/grooving of any significance

   2) structural defects like buckling, fractures and deformed structures

   3) detached and/or holed structure

   4) corrosion of welds.

When thickness measurements are taken in association with intermediate or renewal survey, a documented record indicating where and when the meeting took place and who attended (the name of the surveyor(s), the master of the yacht or an appropriately qualified representative appointed by the master or Company, the owner’s representative(s) and the representative(s) of the thickness measurement firm(s)) is to be maintained.

2.3.3 Thickness measurements and close-up surveys

In any kind of survey, i.e. renewal, intermediate, annual or other surveys having the scope of the foregoing, thickness measurements of structures in areas where close-up surveys are required are to be carried out simultaneously with close-up surveys.

For close-up surveys of yachts other than those subject to the requirements of Ch 4, Sec 2, 3, 4 and 9, consideration may be given by the Surveyor to allow use of Remote Inspection Technique (RIT) as an alternative to close-up survey. Surveys conducted using a RIT are to be completed to the satisfaction of the Surveyor. When RIT is used for a close-up survey, temporary means of access for the corresponding thickness measurements are to be provided unless such RIT is also able to carry out the required thickness measurements.

In all cases the extent of the thickness measurements is to be sufficient as to represent the actual average condition.

For structure built with a material other than steel, alternative thickness measurement requirements may be developed and applied as deemed necessary by the Society.

2.3.4 Approval of thickness measurement firms

Thickness measurements are to be carried out by a firm approved by the Society in accordance with the "Rules for the Certification of Service Suppliers".

2.3.5 Monitoring of the thickness measurement process on board

The Surveyor will decide the final extent and location of thickness measurements after overall survey of representative spaces on board.

If the Owner prefers to commence the thickness measurements prior to the overall survey then the Surveyor will advise that the planned extent and locations of thickness measurements are subject to confirmation during the overall survey.

Based on findings, the Surveyor may require additional thickness measurements to be taken.

The Surveyor will direct the gauging operation by selecting locations such that, on average, readings taken represent the condition of the structure for that area.

Thickness measurements taken mainly to evaluate the extent of corrosion which may affect the hull girder strength are to be carried out systematically in all longitudinal structural members that are required to be gauged by the relevant provisions of the Rules.

Where thickness measurements indicate substantial corrosion or wastage in excess of allowable diminution, the Surveyor will direct locations for additional thickness measurements in order to delineate areas of substantial corrosion and to identify structural members for repairs/renewals.

2.3.6 Review and verification

Upon completion of the thickness measurements, the Surveyor will confirm that no further gaugings are needed, or specify additional gaugings.

If, where special consideration is allowed by the Rule requirements, the extent of thickness measurements is reduced, the Surveyor's special consideration will be reported.

If thickness measurements are partly carried out, the extent of the remaining measurements will be reported for the use of the next Surveyor.

2.3.7 Thickness measurement report

A thickness measurement report is to be prepared. The report is to give the location of measurements, the thickness measured and the corresponding original thickness. Furthermore, the report is to include the date when the measurements were carried out, the type of measuring equipment, the names and the qualification of the operators and their signatures.

The report is validated by the Surveyor.

2.3.8 Acceptance criteria

For acceptance criteria applicable to structural corrosion diminution levels, reference is to be made to App 5.

2.3.9 Evaluation of longitudinal strength

The yacht's longitudinal strength is to be evaluated by using the thickness of structural members measured, re-newed and reinforced, as appropriate, during the class renewal survey carried out after the yacht reached 20 years of age in accordance with the criteria for longitudinal strength of the yacht's hull girder specified in App 6.

2.4 Agreement of firms for in-water survey

2.4.1 The in-water surveys referred to in the Rules are to be carried out by a firm approved by the Society in accordance with the "Rules for the Certification of Service Suppliers"..

2.5 Conditions for surveys

2.5.1 The Owner is to provide the necessary facilities for the safe execution of the surveys, as per Ch 1, Sec 1, [3.2.2].

a) In order to enable the attending Surveyors to carry out the survey, provisions for proper and safe access are to be agreed between the Owner and the Society, these are also to be in accordance with the provisions of IACS PR 37;

b) in cases where the provisions made for safety and required access are judged by the attending Surveyors to be inadequate, the survey of the spaces involved is not to proceed.

2.5.2 Tanks and spaces are to be safe for access, gasfree and properly ventilated. Prior to entering a tank, void or enclosed space, it is to be verified that the atmosphere in that space is free from hazardous gas and contains suffi-cient oxygen.

2.5.3 In preparation for survey and thickness measurements and to allow for a thorough examination, all spaces are to be cleaned including removal from surfaces of all loose accumulated corrosion scale. Spaces are to be sufficiently clean and free from water, scale, dirt, oil residues etc to reveal corrosion, deformation, fractures, damage or other structural deterioration. However, those areas of structure whose renewal has already been decided by the Owner need only be cleaned and descaled to the extent necessary to determine the limits of the renewed areas.

2.5.4 Illumination is to be provided to reveal significant corrosion, deformation, fractures, damage or other structural deterioration.

2.5.5 When examination of associated structure is required, the following applies:

- ceilings in compartments and floors in the engine room are to be lifted to the necessary extent for examination of the structure;
- cement or other protective sheathing is to be removed when there is any doubt as to the condition of the plating underneath or when adherence to plating is not tight;
- in the case of solid ballast spaces, the solid ballast is to be partially removed for examination of the condition of the structure in way. Should doubts arise, the Surveyor may require more extensive removal of the solid ballast;
- in refrigerated cargo spaces the condition of the coating behind the insulation is to be examined at representa-tive locations. The examination may be limited to verification that the protective coating remains effective and that there are no visible structural defects. Where poor coating condition is found, the examination is to be ex-tended as deemed necessary by the Surveyor. The condition of the coating is to be reported. If indents, scratches, etc. are detected during surveys of shell plating from the outside, insulations in way are to be re-moved as required by the Surveyor, for further examination of the plating and adjacent frames
- where soft or semi-hard coatings have been applied, safe access is to be provided for the Surveyor to verify the effectiveness of the coating and to carry out an assessment of the conditions of internal structures which may include spot removal of the coating. When safe access cannot be provided, the soft or semi-hard coating is to be removed;
- casings, ceilings or linings, and loose insulation, where fitted, are to be removed, as required by the Surveyor, for examination of plating and framing. Compositions on plating are to be examined and sounded, but need not be disturbed if found adhering satisfactorily to the plating.

2.6 Surveys by use of a Remote Inspection Technique (RIT)

2.6.1 The survey conducted by use of a RIT is to provide the information normally obtained from a close-up survey.

An inspection plan for the use of a RIT, including any confirmatory survey/close-up survey/thickness measure-ments, is to be submitted for review and acceptance in advance of the survey, so that satisfactory arrange-ments can be agreed on with the Society.

Prior to the commencement of the survey, a meeting is to be held between the RIT operator, the owner's representative and the Surveyor for the purpose of ascertaining that all the arrangements detailed in the inspection plan are in place, so as to ensure the safe and efficient conduct of the survey to be carried out. The equipment and procedure for observing and reporting the survey using a RIT are to be discussed and agreed with the parties involved prior to the RIT survey, and suitable time is to be allowed to set-up, calibrate and test all equipment beforehand.

A RIT survey used as an alternative to a close-up survey, if not carried out by the Society itself, is to be conducted by a firm approved by the Society in accordance with the "Rules for the Certification of Service Suppliers" and to be witnessed by a Surveyor of the Society.

The structures to be examined using a RIT are to be sufficiently clean and the visibility is to be sufficient, to permit a meaningful examination. The Society is to be satisfied with the methods of orientation on the structures.

The Surveyor is to be satisfied with the method of data presentation including pictorial representation, and a good two-way communication between the Surveyor and the RIT operator is to be provided.

Confirmatory surveys/close-up surveys may be carried out by the Surveyor at selected locations to verify the re-sults of the remote inspection technique.

Confirmatory thickness measurements may be requested by the Surveyor appropriately.

The use of RIT may be restricted or limited where there is a record or indication of abnormal deterioration or damage to the structures or the items to be surveyed.

The RIT may not be applicable if there are conditions of class for repairs or conditions affecting the class of the vessel are found during the course of the survey.

If the RIT reveals damage or deterioration that requires attention, the Surveyor may require traditional survey without the use of a RIT to be undertaken.

2.7 Access to structures

2.7.1 For overall survey, means are to be provided to enable the Surveyor to examine the structure in a safe and practical way.

2.7.2 For close-up survey, one or more of the following means for access, acceptable to the Surveyor, is to be provided:

- permanent staging and passages through structures
- temporary staging and passages through structures
- hydraulic arm vehicles such as conventional cherry pickers, lifts and moveable platforms
- boats or rafts
- portable ladders
- other equivalent means (see Note 1).

Note 1: For guidance refer to IACS Recommendation No. 91 “Guidelines for Approval / Acceptance of Alternative Means of Access".

2.7.3 For surveys conducted by use of a Remote Inspection Technique, one or more of the following means for access, acceptable to the Surveyor, is to be provided:

- unmanned robot arm
- Remotely Operated Vehicles (ROV)
- unmanned Aerial Vehicles / drones
- other means acceptable to the Society.

2.8 Equipment for surveys

2.8.1 One or more of the following fracture detection methods may be required if deemed necessary by the Surveyor:

- radiography (X or γ rays)
- ultrasonic test
- magnetic particle test
- dye penetrant test.

2.8.2 Thickness measurement is normally to be carried out by means of ultrasonic test equipment. The accuracy of the equipment is to be proven to the Surveyor as required.

2.8.3 Explosimeter, oxygen-meter, breathing apparatus, lifelines, riding belts with rope and hook and whistles together with instructions and guidance on their use are to be made available during the survey. A safety checklist is to be provided.

2.8.4 Adequate and safe lighting is to be provided for the safe and efficient conduct of the survey.

2.8.5 Adequate protective clothing (e.g. safety helmet, gloves, safety shoes, etc) is to be made available and used during the survey.

2.9 Rescue and emergency response equipment

2.9.1 If breathing apparatus and/or other equipment is used as rescue and emergency response equipment then it is recommended that the equipment be suitable for the configuration of the space being surveyed.

2.10 Surveys at sea and anchorage

2.10.1 Surveys at sea or at anchorage may be accepted provided the Surveyor is given the necessary assistance by the personnel on board. Precautions and procedures for carrying out the survey are to be in accordance with [2.4], [2.5] and [2.6].

2.10.2 A communication system is to be arranged between the survey party in the tank or space and the responsible officer on deck.

This system is also to include the personnel in charge of ballast pump handling if boats or rafts are used.

2.11 Repairs and maintenance during a voyage

2.11.1 Where repairs to hull, machinery or other equipment, which affect or may affect the class, are to be carried out by a riding crew during a voyage, they are to be planned in advance. A complete repair procedure including the extent of proposed repair and the need for the Surveyor's attendance during the voyage is to be submitted to The Society for approval sufficiently in advance. Failure to notify The Society in advance of the repairs may result in the suspension of class of the yacht.

Where, in any emergency circumstance, emergency repairs are to be effected immediately, the repairs are to be documented in the yacht's log and submitted thereafter to the Society for use in determining further survey requirements.

2.11.2 The above is not intended to include maintenance to and overhaul of the hull, machinery and equipment in accordance with the Manufacturer's recommended procedures and established marine practice, which does not require The Society's agreement. However, any repair resulting from such maintenance and overhauls which affects or may affect the class is to be noted in the yacht's log and submitted to the attending Surveyor for use in determining further survey requirements.

2.12 Prompt and thorough repairs

2.12.1 Any damage in association with wastage over the allowable limits (including buckling, grooving, detachment or fracture), or extensive areas of wastage over the allowable limits, which affects or, in the opinion of the Surveyor, will affect the vessel's structural, watertight or weathertight integrity, is to be promptly and thoroughly (see [2.1.15]) repaired. Areas to be considered include, as far as applicable, the following:

- side structure and side plating;
- deck structure and deck plating;
- bottom structure and bottom plating;
- inner bottom structure and inner bottom plating;
- inner side structure and inner side plating;
- longitudinal bulkhead structure and longitudinal bulkhead plating, where fitted;
- transverse watertight bulkhead structure and transverse watertight bulkhead plating;
- hatch covers and hatch coamings, where fitted;
- weld connection between air pipes and deck plating;
- air pipe heads installed on the exposed decks;
- ventilators, including closing devices, if any.

For locations where adequate repair facilities are not available, consideration may be given to allowing the vessel to proceed directly to a repair facility. This may require temporary repairs for the intended voyage.

2.12.2 Additionally, when a survey results in the identification of structural defects or corrosion, either of which, in the opinion of the Surveyor, will impair the yacht's fitness for continued service, remedial measures are to be implemented before the yacht continues in service.

2.12.3 Where the damage found on structure mentioned in [2.11.1] is isolated and of a localised nature which does not affect the yacht's structural integrity, consideration may be given by the surveyor to allow an appropriate temporary repair to restore watertight or weather tight integrity and impose a conditions of class in accordance with [2.13], with a specific time limit.

2.13 Survey attendance requirements

2.13.1 Qualification of Surveyors

Surveyors used to fulfil this requirement are to be qualified for the survey processes involved.

2.13.2 Documentation of attendance on board

The attendance on board of the Surveyors will be documented according to the Society's procedures.

2.14 Procedure for imposing and clearing conditions of class

2.14.1 Reasons for imposing conditions of class

Conditions of class are to be imposed for the following reasons:

a) repairs and/or renewals related to damage that affect classification (e.g. grounding, structural damage, machinery damage, wastage over the allowable limits, etc.);

b) supplementary survey requirements;

c) temporary repairs.

2.14.2 Conditions of class for repairs

For repairs not completed at the time of survey, a condition of class is to be imposed. In order to provide adequate information to the Surveyor attending for survey of the repairs, the condition of class is to be sufficiently detailed with identification of items to be repaired. For identification of extensive repairs, reference may be given to the survey report.

2.14.3 Conditions of class with service limitations

Conditions of class may require imposing limitations related to navigation and operation that are deemed necessary for continued operation under classification (e.g. loss of anchor and/or chain, etc.).

2.14.4 Issue of conditions of class

Conditions of class are to be given in writing with a time limit for completion to the Owner's representatives/Ship's Master, and are to be clearly stated on the Certificate of Classification or an attachment to the Certificate of Classification and/or class survey status or report.

2.14.5 Notification of conditions of class

Owners will be notified of these dates and that the vessel's class will be subject to a suspension procedure if the item is not dealt with, or postponed, by the due date (refer to Sec 3, [1.2.12]).

2.14.6 Clearance of conditions of class

Clearance of conditions of class is to be supported by a survey report giving details of all associated repairs and/or renewals, or of the supplemental surveys carried out.

Repairs carried out are to be reported with identification of:

a) compartment and location

b) structural member

c) repair method

d) repair extent

e) NDT/ Test

2.14.7 Conditions of class partially dealt with

Partially dealt with conditions of class are be supported by a survey report giving details of repairs and/or renewals, or of that part of the supplemental surveys carried out and those parts remaining outstanding.

2.15 Remote surveys

2.15.1 For carrying out remote surveys the requirements in App 7 are to be complied with.

3 Certificate of Classification: issue, validity, endorsement and renewal

3.1 Issue of Certificate of Classification

3.1.1 A Certificate of Classification, bearing the class notations assigned to the yacht and an expiry date, is issued to any classed yacht.

3.1.2 A Provisional Certificate of Classification may serve as a Certificate of Classification in some cases, such as after an admission to class survey, or when the Society deems it necessary.

3.1.3 The Certificate of Classification or Provisional Certificate of Classification is to be made available to the Society's Surveyors upon request.

3.2 Validity of Certificate of Classification, maintenance of class

3.2.1 According to Ch 1, Sec 1, [2.4], the Society alone is qualified to confirm the class of the yacht and the validity of its Certificate of Classification.

3.2.2 During the class period, a Certificate of Classification is valid when it is not expired. The class is maintained during a certain period or at a given date, when during the said period or at such date the conditions for suspension or withdrawal of class are not met.

3.2.3 At the request of the Owner, a statement confirming the maintenance of class may be issued by the Society based on the information in its records for that yacht at the time.

This statement is issued on the assumption that the Owner has complied with the Rules, in particular with [5]. Should any information which would have prevented the Society from issuing the statement and which was not available at the time subsequently come to light, the statement may be cancelled. Attention is drawn to Sec 3, [1.2], whereby the Society, upon becoming aware of a breach of the Rules, is empowered to suspend class from the date of the breach, which may be prior to the date of the statement.

3.2.4 According to the same conditions as in [3.2.3], a statement declaring that the class is maintained "clean and free from condition of class" may be issued by the Society when there is no pending condition of class at that date.

3.2.5 Classification-related documents and information are liable to be invalidated by the Society whenever their object is found to differ from that on which they were based or to be contrary to the applicable requirements. The Owner is liable for any damage which may be caused to any third party from improper use of such documents and information.

3.3 Endorsement of Certificate of Classification

3.3.1 Purpose of endorsements

The endorsements of class give official evidence of:

a) class surveys carried out,

b) class validity, and

c) conditions imposed and/or main items out of service (if any).

3.3.2 Direct endorsement of the Certificate of Classification

The Certificate of Classification is directly endorsed before the vessel sails where an annual, intermediate or class renewal survey is completed, using the appropriate section of the Certificate of Classification.

A section is also available to record postponement of the class renewal survey.

3.3.3 Class Survey Endorsement Sheet

In addition to the direct endorsement of the Certificate of Classification as described in [3.3.2], a Class Survey Endorsement Sheet is issued before the yacht sails where any class survey is carried out.

The Class Survey Endorsement Sheet is an attachment to the Certificate of Classification and, as such, it is to be available on board at any time.

3.3.4 Possible modifications to endorsements

The Society reserves the right to modify the endorsements made by Surveyors.

3.4 Status of surveys and conditions of class

3.4.1 Information given in the Certificate of Classification, associated endorsements, Rules and specific documents enables the Owner to identify the status of surveys and conditions of class.

3.4.2 The omission of such information does not absolve the Owner from ensuring that surveys are held by the limit dates and pending conditions of class are cleared to avoid any inconvenience which is liable to result from the suspension or withdrawal of class; see Sec 3.

4 Class renewal Surveys

4.1 General principles

4.1.1 The first class renewal survey is to be completed within 5 years from the date of the initial classification survey and thereafter 5 years from the credited date of the previous class renewal survey. However, consideration may be given by the Society to granting an extension for a maximum of three months after the limit date, in exceptional circumstances and provided that the yacht is attended and the attending Surveyor so recommends. In such cases the next period of class will start from the limit date for the previous class renewal survey before the extension was granted.

4.1.2 For surveys completed within 3 months before the limit date of the class renewal survey, the next period of class will start from this limit date. For surveys completed more than three months before the limit date, the period of class will start from the survey completion date.

4.1.3 In cases where the vessel has been laid up or has been out of service for a considerable period because of a major repair or modification and the owner elects to carry out only the overdue surveys, the next period of class will start from the expiry date of the renewal survey. If the owner elects to carry out the next special survey due, the period of class will start from the survey completion date.

4.1.4 A new period of class is assigned to the yacht after the satisfactory completion of the class renewal survey, and a new Certificate of Classification with relevant annexes is issued for the new period of class.

4.1.5 Concurrent crediting to both intermediate survey and class renewal survey for surveys and thickness measurements of spaces is not acceptable.

4.2 Normal system

4.2.1 When the normal system is applied, the class renewal survey may be commenced at the fourth annual survey and continued during the following year with a view to completion by its due date. In this case the survey may be carried out by partial surveys at different times. The number of checks to be performed at each partial survey and the interval between partial surveys are to be agreed by the Society. In general, the first partial survey is to include a significant number of thickness measurements, where required by the Rules.

4.2.2 A class renewal survey may be commenced before the fourth annual survey at the request of the Owner. The conditions for the execution of partial surveys are the same as those referred to in [4.2.1].

4.3 Machinery continuous survey system

4.3.1 The request by the Owner for admission to the continuous survey system will be considered by the Society and agreement depends on the type and age of machinery. This system may apply to the class renewal survey of machinery (CMS).

4.3.2 The continuous survey system is not applicable to the class renewal survey of hulls of yachts over 20 years old. However, at the discretion of the Society, consideration may be given to the applicability of the continuous survey system to the class renewal survey of yachts over 20 years old.

4.3.3 For yachts more than 10 years of age, the ballast tanks are to be internally examined twice in each five-year class period, i.e. once within the scope of the intermediate survey and once within the scope of the continuous sys-tem for the class renewal survey of hull.

4.3.4 When the continuous survey system is applied, appropriate notations are entered on the Certificate of Classification and in the Register of Ships.

4.3.5 Yachts subject to the continuous survey system are provided with lists of items to be surveyed under this system; these lists are attached to the Certificate of Classification.

4.3.6 For items inspected under the continuous survey system, the following requirements generally apply:

a) the interval between two consecutive surveys of each item is not to exceed five years;

b) the items are to be surveyed in rotation, so far as practicable ensuring that approximately equivalent portions are examined each year;

c) the Society may credit for continuous survey, results of inspections carried out before the admission to the continuous survey scheme;

d) each item is to be surveyed at one time, as far as practicable; the Society may, however, allow possible repair work to be carried out within a certain period;

e) the Surveyor may, at his discretion, extend the inspection to other items, if previous inspections carried out revealed any defects.

4.3.7 For yachts under continuous survey, items not included in the continuous survey cycle are to be inspected according to the provisions given in [4.2].

4.3.8 Upon application by the Owner, The Society may agree, subject to certain conditions, that some items of machinery which are included in the continuous survey cycle are examined by the Chief Engineer where The Society is not represented. The Chief Engineer is to be certified for this purpose by The Society and his examination is to be followed by a confirmatory survey carried out by a Surveyor.

The conditions for the application of this procedure are given in App 4.

4.3.9 Yachts on the continuous survey system are not exempt from other periodical surveys.

4.3.10 A general examination of the yacht, as detailed in Ch 3, Sec 3 for annual surveys, is to be carried out at the end of the period of class.

4.3.11 The survey in dry dock may be held at any time within the five-year class period, provided all the requirements of Ch 3, Sec 6, [2] are also complied with.

4.3.12 For laid-up yachts, specific requirements given in [12.1] apply.

4.3.13 The continuous survey system may be discontinued at any time at the discretion of the Society, or at the request of the Owner, and a specific arrangement devised.

4.4 Planned maintenance system (PMS) for machinery

4.4.1 A planned maintenance system may be considered as an alternative to the continuous survey system for machinery and is limited to components and systems covered by it. When such a system approved by the Society is implemented, a survey scheme other than those normally adopted and with intervals different from those of the continuous survey system as detailed in [4.3] may be accepted.

4.4.2 The conditions for approval of the planned maintenance system, the determination of survey item intervals and the general scope of surveys are detailed in Pt F, Ch 12, Sec 1 of Tasneef Rules for the Classification of Ships.

4.4.3 When the planned maintenance system is applied, the notation PMS is entered on the Certificate of Classification and in the Register of Ships.

4.4.4 The planned maintenance system does not supersede the annual surveys or other periodical surveys.

4.4.5 A general examination of the machinery, as detailed in Ch 3, Sec 1 for annual surveys, is to be carried out at the end of the period of class.

4.4.6 The planned maintenance system may be discontinued at any time at the discretion of the Society, or at the request of the Owner, and a specific arrangement devised.

5 Annual surveys

5.1

5.1.1 In the five-year period of class, five annual surveys are to be carried out. The first to fourth annual surveys have a six-month window, i.e. from three months before to three months after each anniversary date, while the fifth annual survey has only a three-month window, i.e. from three months before to the fifth anniversary date.

6 Intermediate surveys

6.1

6.1.1 An intermediate survey, where applicable, is to be carried out within the window from three months before the second to three months after the third anniversary date.

6.1.2 The intermediate survey is applicable at any period of class to yachts which are five years old and over.

6.1.3 The internal examination of ballast spaces, overall and/or close-up survey of ballast spaces or tanks, as applicable, carried out at the 2nd or 3rd annual survey are also credited towards the intermediate survey.

6.1.4 Concurrent crediting to both intermediate survey and class renewal survey for surveys and thickness measurements of spaces is not acceptable.

7 Bottom survey

7.1

7.1.1 Bottom survey means the examination of the outside of the yacht’s bottom and related items. This examination may be carried out with the yacht either in dry dock (or on a slipway) or afloat: in the former case the survey will be referred to as dry-docking survey, while in the latter case as in-water survey.

7.1.2 The Owner is to notify the Society whenever the outside of the yacht’s bottom and related items can be examined in dry dock or on a slipway.

7.1.3 There is to be a minimum of two examinations of the outside of the yacht's bottom and related items during each five year class renewal survey period. One such examination is to be carried out in conjunction with the class renewal survey.

In all cases the interval between any two such examinations is not to exceed 36 months. An extension of examination of the yacht's bottom of three months beyond the due date may be granted in exceptional circumstances (see [2.1.7]).

Note 1: Attention is drawn to the relevant requirements of Ch 1,Sec 1, [3.1], concerning application of national and international regulations.

7.1.4 Examinations of the outside of yacht's bottom and related items of yachts are normally to be carried out with the yacht in drydock. However, consideration may be given to alternate examination while the yacht is afloat as an In-water Survey, subject to the provisions of Ch 3, Sec 6, [3]. Special consideration is to be given to yachts of 15 years or over before being permitted to have such examinations.

7.1.5 For yachts of unusual characteristics or engaged on special services, means of underwater inspection equivalent to the bottom survey in dry condition may be considered as an alternative by the Society, particularly when a suitable high resistance paint is applied to the underwater portion of the hull or an approved system of impressed current for external cathodic protection is fitted.

7.1.6 Compliance with the requirements of this item [7] and Ch 3, Sec 6 does not absolve the Owner from compliance with the requirements of other statutory regulations, if any, especially when shorter intervals between examinations of the yacht's bottom are required for certain types of yachts.

8 Shaft survey

8.1 General

8.1.1 Shaft survey means survey of propeller shafts and tube shafts as well as survey of other propulsion systems.

8.2 Surveys of Propeller Shafts and Tube Shafts

8.2.1 Application

Unless alternative means are provided to ensure the condition of the propeller shaft assembly, these requirements apply to all vessels with conventional shafting fitted with a propeller.

Three survey methods, as detailed in Ch 3, Sec 7, [2], are considered for shafts lubricated by oil or fresh water in a closed loop system. The methods are to be applied according to the provisions of [8.2.3].

One survey method, as detailed in Ch 3, Sec 7, [2], is considered for shafts lubricated by water in an open loop system. The methods are to be applied according to the provisions of [8.2.4].

For surveys completed within 3 months before the shaft survey due date, the next period will start from the shaft survey due date.

Three kinds of survey extensions, as detailed in Ch 3, Sec 7, [2] may be applied to shafts lubricated by oil or fresh water in a closed loop system, according to the provisions of [8.2.3], in order to extend the shaft survey due date.

Two kinds of survey extensions, as detailed in Ch 3, Sec 7, [2] may be applied to shafts lubricated by water in an open loop system, according to the provisions of [8.2.4], in order to extend the shaft survey due date.

8.2.2 Definitions

a) Shaft

Shaft is a general definition that includes could mean:

- Propeller shaft
- Tube shaft

The definition does not include the intermediate shaft(s) which is(are) considered part of the propulsion shafting inside the vessel.

b) Propeller Shaft

Propeller shaft is the part of the propulsion shaft to which the propeller is fitted. It may also be called screwshaft or tailshaft.

c) Tube Shaft

Tube shaft is a shaft placed between the intermediate shaft and propeller shaft, normally arranged within a stern tube or running in open water.

It may also be called Stern Tube Shaft.

d) Stern tube

Tube or pipe fitted in the shell of a yacht at the stern (or rear part of the yacht), below the waterline, through which the tube shaft or aftermost section of the propeller shaft passes. The stern tube is the housing of the shaft bearings, generally two (one aft and one fore), that sustain the shaft and allow its rotation with less frictional resistance. The stern tube also accommodates the shaft sealing arrangement.

e) Closed Loop (system) Oil Lubricated bearing

Closed loop oil lubricating systems use oil to lubricate the bearings and are sealed against the environment (seawater) by adequate sealing/gland devices.

f) Water Lubricated Bearing

Water lubricated bearings are bearings cooled/lubricated by water (fresh or salt).

g) Closed Loop System Fresh Water Lubricated Bearing

Closed loop water lubricating systems use fresh water to lubricate the bearings and are sealed against the environment (such as seawater) by adequate sealing/gland devices.

h) Open Systems (water)

Open water lubricating systems use water to lubricate the bearings and are exposed to the environment.

i) Adequate means for protection against corrosion

An adequate means for protection against corrosion is an approved means for full protection of the core shaft against sea water intrusion and subsequent corrosion attack. Such means are used for the protection of common steel material against corrosion, particularly in combination with water lubricated bearings.

Typical means are for example:

- continuous metallic, corrosion resistant liners,
- continuous cladding,
- multiple layer synthetic coating,

- multiple layer of fiberglass,
- combinations of the above-mentioned,
- rubber/elastomer covering coating.

The means for protection against corrosion are installed/applied according to class approved procedures.

j) Corrosion Resistant Shaft

The corrosion resistant shaft is made of approved corrosion resistant steel as core material for the shaft.

k) Stern tube Sealing System

The stern tube sealing system is the equipment installed on the inboard extremity and, for closed systems, at the outboard extremity of the stern tube.

The inboard seal is the device fitted on the fore part of the stern tube that achieves a seal against possible leakage of the lubricant media within the yacht's interior.

The outboard seal is the device fitted on the aft part of the stern tube that achieves a seal against possible sea water ingress and leakage of the lubricant media.

l) Service records

Service records are regularly recorded data showing in-service conditions of the shaft(s) and may include, as applicable: lubricating oil temperature, bearing temperature and oil consumption records (for oil lubricated bearings) or water flow, water temperature, salinity, pH, make-up water and water pressure (for closed loop fresh water lubricated bearings depending on design).

m) Oil sample examination

An oil sample examination is a visual examination of the stern tube lubricating oil taken in the presence of the surveyor with a focus on water contamination.

n) Lubricating oil analysis

Lubricating oil analysis is to be carried out at regular intervals not exceeding six (6) months taking into account IACS Rec. 36.

The documentation on lubricating oil analysis is to be available on board.

Oil samples, to be submitted for the analysis, should be taken under service conditions.

o) Fresh water sample test

The fresh water sample test should be carried out at regular intervals not exceeding six (6) months.

Samples are to be taken under service conditions and are to be representative of the water circulating within the stern tube.

Analysis results are to be retained on board and made available to the surveyor.

At the time of survey, the sample for the test is to be taken in the presence of the surveyor.

The fresh water sample test is to include the following parameters:

- chlorides content,
- pH value,
- presence of bearing particles or other particles (only for laboratory analysis, not required for tests carried out in the presence of the surveyor).

p) Keyless connection

Keyless connection is the forced coupling methodology between the shaft and the propeller without a key, achieved through interference fit of the propeller boss on the shaft tapered end.

q) Keyed connection

Keyed connection is the forced coupling methodology between the shaft and the propeller with a key and keyway, achieved through the interference fit of the propeller boss on the shaft tapered end.

r) Flanged connection

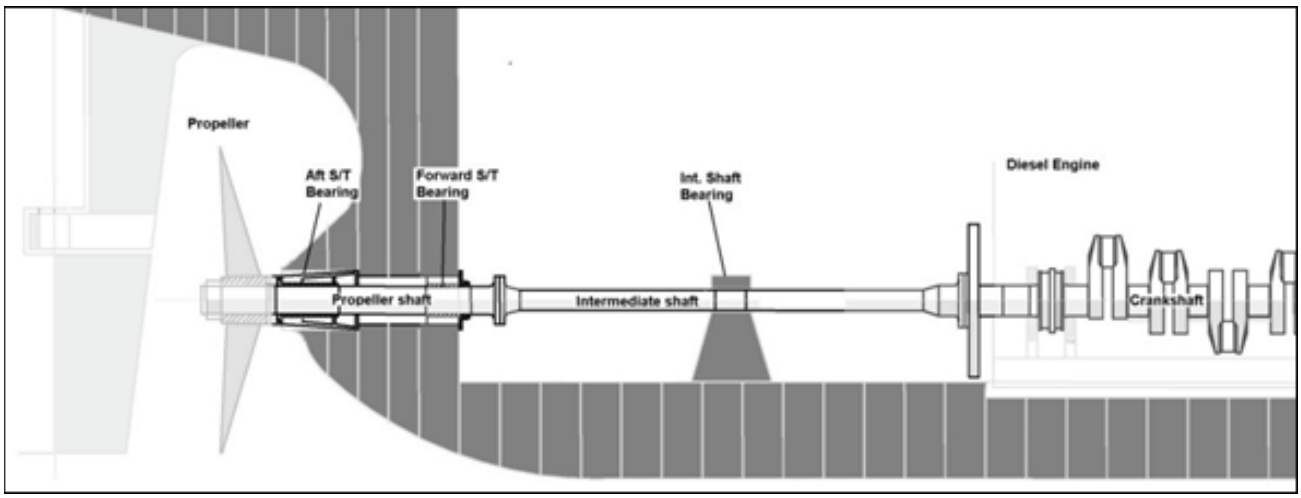
Flanged connection is the coupling methodology, between the shaft and the propeller, achieved by a flange, built in at the shaft aft end, bolted to the propeller boss.

s) Alternative means

Shafting arrangements such as, but not limited to, an approved Condition Monitoring Scheme and / or other reliable approved means for assessing and monitoring the condition of the tail shaft, bearings, sealing devices and the stern tube lubricant system capable to assure the condition of the propeller shaft assembly with an equivalent level of safety as obtained by survey methods as applicable in IACS UR Z21.

The shaft to which the additional class notation **MON-SHAFT** is assigned is to be considered as shafting having a configuration other than described in the present paragraph.

Figure 1 : Typical Shafting Arrangement



8.2.3 Oil Lubricated Shafts or Closed Loop System Fresh Water Lubricated Shafts (refer also to Table 2)

a) Oil lubricated shaft survey intervals

1) Flanged propeller connection

The following methods are applicable:

- Method 1 every 5 years, or
- Method 2 every 5 years (pre-requisites have to be fulfilled), or
- Method 3 every 5 years (pre-requisites have to be fulfilled)

2) Keyless propeller connection

The following methods are applicable:

- Method 1 every 5 years, or
- Method 2 every 5 years (pre-requisites have to be fulfilled), or
- Method 3 every 5 years (pre-requisites have to be fulfilled).

The maximum interval between two surveys carried out according to method 1 or method 2 is not to exceed 15 years, except in the case when one extension for no more than three months is granted

3) Keyed propeller connection

The following methods are applicable:

- Method 1 every 5 years, or
- Method 2 every 5 years (pre-requisites have to be fulfilled).

b) Fresh water lubricated shafts (closed loop system) survey intervals

For all types of coupling, the maximum interval between two surveys carried out according to method 1 is not to exceed 15 years. An extension for no more than three months can be granted

1) Flanged propeller connection

The following methods are applicable:

- Method 1 every 5 years, or
- Method 2 every 5 years (pre-requisites have to be fulfilled), or
- Method 3 every 5 years (pre-requisites have to be fulfilled)

2) Keyless propeller connection

The following methods are applicable:

- Method 1 every 5 years, or
- Method 2 every 5 years (pre-requisites have to be fulfilled), or
- Method 3 every 5 years with the maximum of two consecutive method 3 surveys (pre-requisites have to be fulfilled).

3) Keyed propeller connection

The following methods are applicable:

- Method 1 every 5 years, or
- Method 2 every 5 years (pre-requisites have to be fulfilled).

c) Survey extensions

For all types of propeller connections, the interval between two consecutive surveys may be extended after the execution of the extension survey as follows:

1) Extension up to a maximum of 2.5 years, no more than one extension can be granted. In the event an additional extension is requested the requirements of the "2.5 year extension" are to be carried out and the shaft survey due date, prior to the previous extension(s), is extended for a maximum of 2.5 years.
2) Extension up to a maximum of 1 year, no more than two consecutive extensions can be granted. No further extension, of other type, can be granted.
3) Extension up to a maximum of 3 months, no more than one "three months extension" can be granted. In the event an additional extension is requested the requirements of the "one year extension" or "2.5 years extension" are to be carried out and the shaft survey due date prior to the previous extension is extended for a maximum of one year or 2.5 years.

The extension survey should normally be carried out within 1 month of the shaft survey due date and the extension counts from the shaft survey due date.

If the extension survey is carried out more than 1 month prior to the shaft survey due date, then the period of extension counts from the date the extension survey was completed.

For fresh water lubricated shafts (closed loop system), the maximum interval between two surveys carried out according to method 1 is not to exceed 15 years, except in the case when one extension for no more than three months is granted.

Table 2 : Survey Intervals (closed systems)

SURVEY INTERVALS (closed systems)			
Oil Lubricated			
	Flanged Propeller Coupling	Keyless Propeller Coupling	Keyed Propeller Coupling **(2)**
Every five years **(1)**	Method 1 or Method 2 or Method 3	Method 1 or Method 2 or Method 3 **(3)**	Method 1 or Method 2
Extension 2,5 Y	Yes **(4)**	Yes **(4)**	Yes **(4)**
Extension 1 Y	Yes **(5)**	Yes **(5)**	Yes **(5)**
Extension 3 M	Yes **(6)**	Yes **(6)**	Yes **(6)**
Closed Loop System Fresh Water Lubricated			
	Flanged Propeller Coupling	Keyless Propeller Coupling	Keyed Propeller Coupling **(2)**
Every five years	Method 1 **(7)** or Method 2 or Method 3	Method 1 **(7)** or Method 2 or Method 3 **(3)**	Method 1 **(7)** or Method 2
Extension 2,5 Y	Yes **(4)**	Yes **(4)**	Yes **(4)**
Extension 1 Y	Yes **(5)**	Yes **(5)**	Yes **(5)**
Extension 3 M	Yes **(6)**	Yes **(6)**	Yes **(6)**

General notes:

For surveys (Method 1, Method 2 or Method 3) completed within 3 months before the shaft survey due date, the next period will start from the shaft survey due date.

The extension survey should normally be carried out within 1 month of the shaft survey due date and the extension counts from the shaft survey due date. If the extension survey is carried out more than 1 month prior to the shaft survey due date, then the period of extension counts from the date the extension survey was completed.

Notes:

(1) unless an Extension type (Extension 2,5 Y, Extension 1 Y, Extension 3 M) is applied in between.

(2) Method 3 is not allowed.

(3) The maximum interval between two surveys carried out according to Method 1 or Method 2 is not to exceed 15 years, except in the case when one extension for no more than three months is granted.

(4) no more than one extension can be granted. No further extension of other type can be granted.

(5) no more than two consecutive extensions can be granted. In the event an additional extension is requested the requirements of the 2.5 year extension are to be carried out and the shaft survey due date, prior to the previous extension(s), is extended for a maximum of 2.5 years.

(6) no more than one three month extension can be granted. In the event an additional extension is requested, the requirements of the one year extension or 2.5 years extension are to be carried out and the shaft survey due date prior to the previous extension is extended for a maximum of one year or 2.5 years.

(7) The maximum interval between two surveys carried out according to Method 1 is not to be more than 15 years.

8.2.4 Water Lubricated Shafts (open loop systems) (refer also to Table 3)

The following survey intervals between surveys according to Method 4 are applicable to all types of propeller connections. For keyless propeller connections, the maximum interval between two consecutive dismantling and verifications of the shaft cone by means of non-destructive examination (NDE) is not to exceed 15 years.

a) Configurations allowing 5 year intervals

   1) Single shaft operating exclusively in fresh water.

   2) Single shaft provided with adequate means of corrosion protection, single corrosion resistant shaft.

   3) All kinds of multiple shaft arrangements.

b) Other systems (3 year intervals)

   Shaft not belonging to one of the configurations listed in [8.2.4]a) is to be surveyed according to Method 4 every 3 years.

c) Survey extensions

For all types of propeller connections, the interval between two consecutive surveys may be extended after the execution of the extension survey as follows:

1) Extension up to a maximum of 1 year, no more than one extension can be granted. No further extension, of other type, can be granted.
2) Extension up to a maximum of 3 months: no more than one "three month extension" can be granted. In the event an additional extension is requested, the requirements of the "one year extension" are to be carried out and the shaft survey due date prior to the previous extension is extended for a maximum of one year.

The extension survey should normally be carried out within 1 month of the shaft survey due date and the extension counts from the shaft survey due date.

If the extension survey is carried out more than 1 month prior to the shaft survey due date, then the period of extension counts from the date the extension survey was completed.

Table 3 : Survey Intervals (open systems)

<table>
<tr><td colspan="4">SURVEY INTERVALS (open systems)</td></tr>
<tr><td colspan="2">• Single Shaft operating exclusively in fresh water
• Single Shaft provided with adequate means of corrosion protection, Single corrosion resistant shaft
• All kinds of multiple shaft arrangements</td><td colspan="2">Other shaft configuration.</td></tr>
<tr><td colspan="2">All kinds of Propeller Coupling (4)</td><td colspan="2">All kinds of Propeller Coupling (4)</td></tr>
<tr><td>Every five years (4)</td><td>Method 4</td><td>Every three years (1)</td><td>Method 4</td></tr>
<tr><td>Extension 1 Y</td><td>Yes (2)</td><td>Extension 1 Y</td><td>Yes (2)</td></tr>
<tr><td>Extension 3 M</td><td>Yes (3)</td><td>Extension 3 M</td><td>Yes (3)</td></tr>
<tr><td colspan="4">General notes:
For surveys (Method 4) completed within 3 months before the shaft survey due date, the next period will start from the shaft survey due date.
The extension survey should normally be carried out within 1 month of the shaft survey due date and the extension counts from the shaft survey due date. If the extension survey is carried out more than 1 month prior to the shaft survey due date, then the period of extension counts from the date the extension survey was completed.

Notes:
(1) unless an Extension type (Extension 1 Y, Extension 3 M) is applied in between
(2) no more than one extension can be granted. No further extension, of other type, can be granted
(3) no more than one extension can be granted. In the event an additional extension is requested, the requirements of the one year extension are to be carried out and the shaft survey due date prior to the previous extension is extended for a maximum of one year
(4) for keyless propeller connections, the maximum interval between two consecutive dismantling and verifications of the shaft cone by means of non-destructive examination (NDE) is not to exceed 15 years.</td></tr>
</table>

8.3 Tailshaft Monitoring System (MON-SHAFT)

8.3.1 Where the additional class notation **MON-SHAFT** is assigned shaft need not be withdrawn provided that all condition monitoring data is found to be within permissible limits and the remaining requirements for the respective surveys are complied with.

8.4 Other propulsion systems

8.4.1 Driving components serving the same purpose as the propulsion shaft in other propulsion systems, such as directional propellers, vertical axis propellers, water jet units, dynamic positioning systems and thruster assisted mooring systems, are to be submitted to periodical surveys at intervals not exceeding five years.

9 Other periodical surveys

9.1 Links between anniversary dates and annual, intermediate and class renewal surveys

9.1.1 The link between the anniversary dates and the class renewal, annual and intermediate surveys is given in Fig 2.

10 Occasional surveys

10.1 General

10.1.1 An occasional survey is any survey which is not a periodical survey. The survey may be defined as an occasional survey of hull, machinery, boilers, etc., depending on the part of the yacht concerned. Where defects are found, the Surveyor may extend the scope of the survey as deemed necessary.

10.1.2 Occasional surveys are carried out at the time of, for example:

- damage or suspected damage
- repair or renewal work
- alterations or conversion

- quality system audits
- postponement of surveys or conditions of class.
- updating of classification documents (e.g. change of the Owner, flag or name of the yacht)
- Port State Control Inspection's.

10.2 Damage and repair surveys

10.2.1 In the event of damage which affects or may affect the class of the yacht, the Owner is to apply to The Society for a survey. Such application is to be made as soon as possible to enable the Surveyor to ascertain the extent of the damage and necessary repairs, if any.

Whenever a yacht is fitted with an helicopter platform which is made in aluminium or other low melting metal construction which is not made equivalent to steel, and a fire occurred on the said platform or in close proximity, the platform is to be subject to a structural survey to determine its suitability for further use

10.2.2 If, after sustaining damage, the yacht calls at a port where the Society is not represented, the Owner is to notify the Society forthwith, supply all available information regarding the damage and make arrangements for the yacht to be surveyed in the nearest port where the Society is represented.

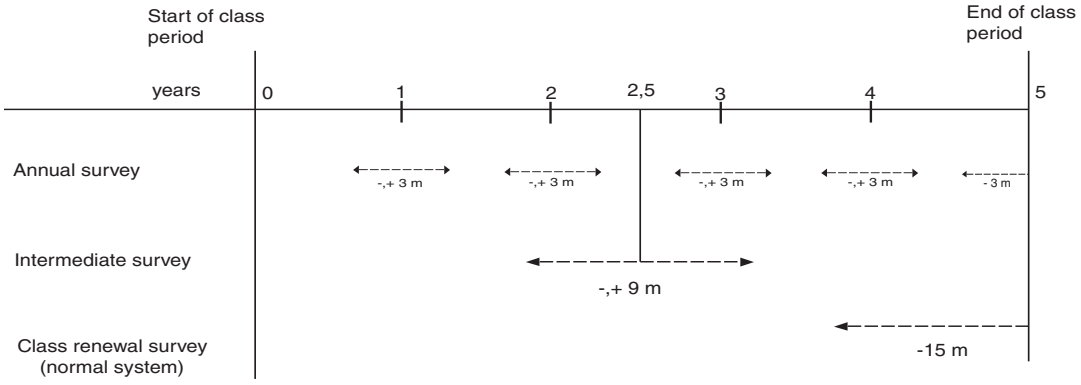
10.2.3 All repairs to hull, machinery and equipment which may be required in order for a yacht to retain its class are to be to the satisfaction of the Surveyor.

During repairs or maintenance work, the Owner is to arrange so that any damage, defect or non-compliance with the Rule requirements is reported to the Surveyor during his survey.

10.2.4 Damage and partial or temporary repairs considered acceptable by the Surveyor for a limited period of time are the subject of an appropriate condition of class.

10.2.5 Damage or repairs required by the Surveyor to be re-examined after a certain period of time are the subject of an appropriate condition of class.

Figure 2 : Links between anniversary date and annual, intermediate and class renewal surveys



10.3 Port State Control survey

10.3.1 An occasional survey is to be requested by the Owner wherever a yacht is detained further to an inspection by a Port State Authority or the flag Administration, as described in Ch 1, Sec 1, [3.

10.4 Conversions, alterations and repairs

10.4.1 Conversions, alterations or repairs of/to structures and arrangements affecting the class are to be carried out in accordance with the requirements of the Society and to its satisfaction. Where necessary, documentation is to be submitted to the Society and/or made available to the attending Surveyor.

10.4.2 Materials and equipment used for conversions, alterations or repairs are generally to meet the requirements of the Rules for new yachts built under survey; see Sec 1, [2.1.6].

10.5 Quality System audits

10.5.1 The Society reserves the right to carry out occasional surveys in order to conduct audits either as deemed necessary in pursuance of its internal Quality System or as required by external organisations (e.g. European Union Commission, QACE - Quality Assessment and Certification Entity, Flag Administrations, IACS).

10.5.2 These surveys may also be attended by auditors external to the Society (e.g. auditors and/or observers of the European Union Commission, QACE - Quality Assessment and Certification Entity, Flag Administrations, IACS).

10.5.3 The scope of these surveys is determined by the Society.

11 Change of ownership

11.1 General

11.1.1 In the case of change of ownership, the yacht retains its current class provided that:

- the Society is informed of the change sufficiently in advance to carry out any survey deemed appropriate,
- the new Owner signs the appropriate request, involving acceptance of the Society's general conditions and Rules. This request covers inter alia the condition of the yacht when changing ownership.

The yacht's class is maintained without prejudice to those provisions in the Rules which are to be enforced in cases likely to cause suspension or withdrawal of the class such as particular damage or repairs to the yacht which the Society has not been advised of by the former or, as the case may be, new Owner.

No information whatsoever related to the class of the yacht will be provided or confirmed to any third party, unless the appropriate request for information is duly completed and signed by the party making the request and the authorisation of the current Owner is obtained.

12 Lay-up and re-commissioning

12.1 General principles

12.1.1 A yacht put out of commission may be subject to specific requirements for maintenance of class, as specified below, provided that the Owner notifies the Society of the fact.

If the Owner does not notify the Society of the laying-up of the yacht or does not implement the lay-up maintenance program, the yacht's class will be suspended and/or withdrawn when the due surveys are not carried out by their limit dates in accordance with the applicable requirements given in Sec 3.

12.1.2 The lay-up maintenance program provides for a "laying-up survey" to be performed at the beginning of layup and subsequent "annual lay-up condition surveys" to be performed in lieu of the normal annual surveys which are no longer required to be carried out as long as the yacht remains laid-up. The minimum content of the lay-up maintenance program as well as the scope of these surveys are given in Pt A, Ch 3, App 1 of Tasneef Rules for the Classification of Ships. The other periodical surveys which become overdue during the lay-up period may be postponed until the re-commissioning of the yacht.

12.1.3 Where the yacht has an approved lay-up maintenance program and its period of class expires, the period of class is extended until it is re-commissioned, subject to the satisfactory completion of the annual lay-up condition surveys as described in [12.1.2].

12.1.4 The periodical surveys carried out during the lay-up period may be credited, either wholly or in part, at the discretion of the Society, having particular regard to their extent and dates. These surveys will be taken into account for the determination of the extent of surveys required for the re-commissioning of the yacht and/or the expiry dates of the next periodical surveys of the same.

12.1.5 When a yacht is re-commissioned, the Owner is to notify the Society and make provisions for the ship to be submitted to the following surveys:

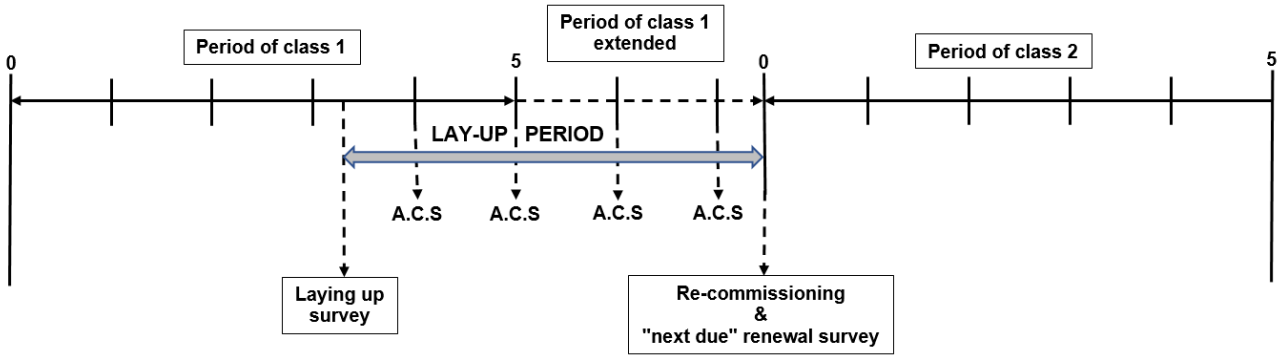
- an occasional survey prior to re-commissioning, the scope of which depends on the duration of the lay-up period
- all periodical surveys which have been postponed in accordance with [12.1.2], taking into account the provisions of [12.1.4]. In all cases where the Owner elects to carry out the "next due" renewal survey, the due periodical hull and machinery surveys will be replaced by this one, Class period will be assigned in accordance with the provisions of [4.1.3].

12.1.6 Those items which have been surveyed in compliance with the class renewal survey requirements during the 15 months preceding the re-commissioning may be credited.

12.1.7 The principles of intervals or limit dates for surveys to be carried out during the lay-up period, as stated in [12.1.1] to [1.21.6], are summarised in Fig 3 and Fig 4.

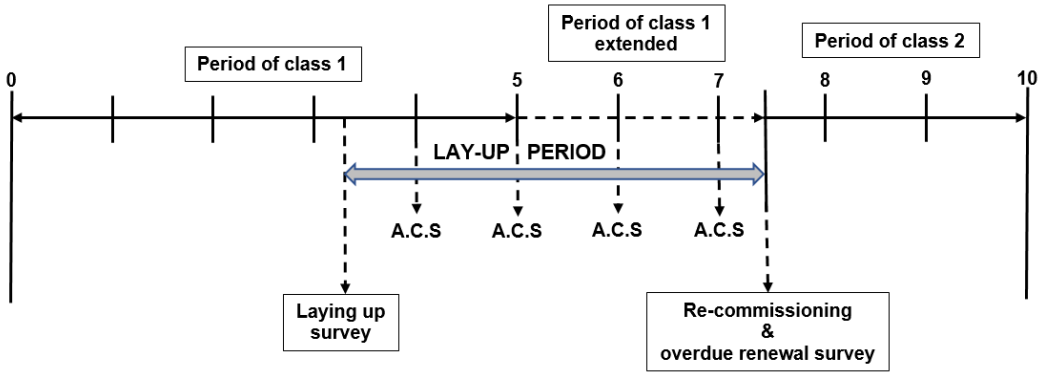
12.1.8 The scope of the laying-up survey and annual lay-up condition surveys are described in detail in Ch 3, App 6.

Figure 3 : Survey scheme of a case of a lay-up going beyond the expiry date of the period of class, when the "next due" renewal survey is carried out



Note: A. C. S. means annual lay-up condition survey.

Figure 4 : Survey scheme of a case of a lay-up going beyond the expiry date of the period of class, when the overdue renewal survey is carried out



Note: A. C. S. means annual lay-up condition survey.

13 Possible safety management system failures

13.1 General

13.1.1 When deficiencies relating to possible safety management system failures are identified by the Surveyor during a periodical (annual/intermediate/renewal) class survey or occasional class survey, statutory surveys, additional surveys relevant to Port State Control, flag State Inspections or any other occasion, a report is to be completed by the Surveyor so that the Organisation responsible for the issue of the SMC, if required, if other than the Society, is notified. Reporting and follow-up actions will be performed in accordance with the Society's procedures.

SECTION 3 SUSPENSION AND WITHDRAWAL OF CLASS

1 Surveys required by IACS Procedural Requirement PR1C

1.1 Discontinuance of class

1.1.1 The class may be discontinued either temporarily or permanently.

The class may be discontinued either temporarily or permanently. In the former case, it is referred to as "suspension" of class, in the latter case as "withdrawal" of class. In both cases, the class is invalidated in all respects. Withdrawal, suspension and reinstating of class are confirmed in writing by the Society to the Owner and to the flag Administration.

1.2 Suspension of class

1.2.1 The class may be suspended either automatically or following the decision of the Society.

Automatic suspension operates as from the date on which the circumstances causing the suspension occur.

Suspension following decision of the Society takes effect from the date when the conditions for suspension of class are met.

Suspension of class will remain in effect until such time as the class is reinstated once the cause giving rise to suspension has been removed, subject to any additional surveys that the Society deems necessary taking into account the condition of the yacht and the cause of the suspension.

In any event, the yacht will be considered as not retaining its class from the date of suspension until the date when class is reinstated irrespective of the date of the confirmation in writing pursuant to [1.1.1].

1.2.2 The class is automatically suspended when one or more of the following circumstances occur:

- when a yacht is not operated in compliance with the rule requirements, such as in cases of services or conditions not covered by the service notation, or trade outside the navigation restrictions for which the class was assigned
- when a yacht proceeds to sea with less freeboard than that assigned, or has the freeboard marks placed on the sides in a position higher than that assigned, or, in cases of yachts where freeboards are not assigned, the draught is greater than that assigned
- when the Owner fails to inform the Society in order to submit the yacht to a survey after defects or damages affecting the class have been detected
- when repairs, alterations or conversions affecting the class are carried out either without requesting the attendance of the Society or not to the satisfaction of the Surveyor. For voyage repairs, reference is to be made to Sec 2, [2.11]
- when a yacht undergoing a survey resumes trading before completion of the same survey or before pending items are dealt with.

1.2.3 Suspension and reinstatement of class in the case of overdue class renewal survey

Owners are to be notified that the 5-year Certificate of Classification expires and classification is automatically suspended from the certificate expiry date in the event that the class renewal survey has not been completed or is not under attendance for completion prior to resuming trading, by the due date.

Classification will be reinstated upon satisfactory completion of the surveys due. The surveys to be carried out are to be based upon the survey requirements at the original date due and not on the age of the vessel when the survey is carried out. Such surveys are to be credited from the date originally due.

However, the ship is disclassed from the date of suspension until the date class is reinstated.

Under "exceptional circumstances", as defined in Sec 2, [2.1.17], The Society may grant an extension not exceeding three months to allow for completion of the class renewal survey provided that the yacht is attended and the attending Surveyor(s) so recommend(s) after the following have been carried out:

a) annual survey;

b) re-examination of conditions of class;

c) progression of the class renewal survey as far as practicable.

In the case where dry-docking is due prior to the end of the class extension, an underwater examination is to be carried out by an approved diving company. An underwater examination by an approved company may be dispensed with in

the case of an extension of the dry-docking survey not exceeding 36 months provided the yacht is without outstanding conditions of class regarding underwater parts. If the Certificate of Classification will expire when the yacht is expected to be at sea, an extension to allow for completion of the class renewal survey may be granted provided that there is documented agreement to such an extension prior to the expiry date of the certificate, that satisfactory arrangements have been made for attendance of the Surveyor at the first port of call, and that The Society is satisfied that there is technical justification for such an extension. Such an extension is to be granted only until arrival at the first port of call after the expiry date of the certificate. However, if owing to "exceptional circumstances" the class renewal survey cannot be completed at the first port of call, the procedure given above in the event of "exceptional circumstances" may be followed, but the total period of extension is in no case to be longer than three months after the original due date of the class renewal survey.

1.2.4 Suspension and reinstatement of class in the case of overdue intermediate survey

The Certificate of Classification becomes invalid, and classification is automatically suspended, if the intermedi-ate survey has not been completed within three (3) months of the due date of the third annual survey in each periodical survey cycle, unless the yacht is under attendance for completion of the intermediate survey but not-withstanding the above, classification will be automatically suspended if the yacht resumes trading prior to completion.

Classification will be reinstated upon satisfactory completion of the surveys due. Such surveys are to be credited from the date originally due.

1.2.5 Suspension and reinstatement of class in the case of overdue annual survey

Owners are to be notified that the Certificate of Classification becomes invalid, and classification is automatically suspended, if the annual survey has not been completed within three (3) months of the due date of the annual survey, unless the yacht is under attendance for completion of the annual survey.

Classification will be reinstated upon satisfactory completion of the surveys due. Such surveys are to be credited from the date originally due.

1.2.6 Suspension of class in the case of overdue continuous survey item(s)

Continuous survey item(s) due or overdue at the time of the annual survey is (are) to be dealt with. The yacht's class will be subject to a suspension procedure if the item(s) is (are) not surveyed, or postponed by agreement.

1.2.7 Other cases of suspension of class

In addition to the circumstances for which automatic suspension may apply, the class of a yacht may also be suspended following the decision of the Society:

- when one or more surveys are not held by their limit dates (see Sec 2, [2.1.4]) or the dates stipulated by the Society also taking into account any extensions granted in accordance with the provisions of Part A
- when, due to reported defects, the Society considers that a yacht is not entitled to retain its class even on a temporary basis (pending necessary repairs or renewals, etc.)
- in other circumstances which the Society will consider on their merits (e.g. in the event of non-payment of fees or where the Owner fails to subject the yacht to the occasional survey as per the requirement in Sec 2, [10.2.1]).

1.2.8 Laid-up yachts

Yachts laid-up in accordance with the requirements indicated in Sec 2, [12.1.1] prior to surveys be-coming overdue need not be suspended when surveys addressed above become overdue. However, yachts which are laid-up after being suspended as a result of surveys going overdue, remain suspended until the overdue surveys are completed.

1.2.9 Voyage to demolition

When it is intended to take a yacht on a demolition voyage with any periodical survey overdue, the yacht's class suspension may be held in abeyance and consideration may be given to allowing the yacht to proceed on a single direct ballast voyage from the lay-up or final discharge port to the demolition yard. In such cases a short-term Certificate of Classification with conditions for the voyage noted may be issued provided the attending Surveyor finds the yacht in satisfactory condition to proceed on the intended voyage.

1.2.10 Force Majeure

If, due to circumstances beyond the Owner's or the Society's control, as defined in Sec 2, [2.1.9], the yacht is not in a port where the overdue surveys can be completed at the expiry of the periods allowed above, the Society may allow the yacht to sail, in class, directly to an agreed discharge port, and if necessary, from there, in ballast, to an agreed port at which the survey will be completed, provided the Society:

a) examines the yacht's records;

b) carries out the due and/or overdue surveys and examination of conditions of class at the first port of call when there is unforeseen inability of the Society to attend the yacht in the present port, and

c) has satisfied itself that the yacht is in condition to sail for one trip to a discharge port and subsequent ballast voyage to a repair facility if necessary. (Where there is unforeseen inability of the Society to attend the yacht in the present port, the Master is to confirm that his yacht is in condition to sail to the nearest port of call).

The surveys to be carried out are to be based upon the survey requirements at the original date due and not on the age of the vessel when the survey is carried out. Such surveys are to be credited from the date originally due. If class has already been automatically suspended in such cases, it may be reinstated subject to the conditions prescribed in this item.

1.2.11 Single voyage for repair of laid-up yachts

When a yacht is intended for a single voyage from laid-up position to a repair yard or another place of lay-up with any periodical survey overdue, the yacht's class suspension may be held in abeyance and consideration may be given to allowing the yacht to proceed on a single direct ballast voyage from the site of lay-up to a repair yard or another place of lay-up, upon agreement with the Flag Administration, provided the Society finds the yacht in satisfactory condition after surveys, the extent of which are to be based on surveys overdue and duration of lay-up. A short-term Class Certificate with conditions for the intended voyage may be issued. This is not applicable to yachts whose class was already suspended prior to being laid-up.

1.2.12 Suspension and reinstatement of class in the case of overdue conditions of class

Each condition of class will be assigned a due date for completion. Owners will be notified of these dates and that the yacht's class will be subject to a suspension procedure if the item is not dealt with, or postponed by agreement, by the due date.

Classification will be reinstated upon verification that the overdue condition of class has been satisfactorily dealt with.

However, the yacht is disclassed from the date of suspension until the date class is reinstated.

1.2.13 Suspension and reinstatement of class of dual classed vessels

When a yacht is dual classed and in the event that one of the Societies involved takes action to suspend the class of the vessel for technical reasons, the Society concerned will advise the other Society of the reasons for such action and the full circumstances within five (5) working days.

If the Society is advised that the "Other Society" has suspended the class for technical reasons, the Society will, upon receipt of this advice, also suspend the class of the vessel, unless it can otherwise document that such suspension is incorrect.

When the Society decides to reinstate class, it is to inform the "Other Society".

Note 1: "Other Society" means, the other classification Society which is involved in the dual class.

1.3 Withdrawal of class

1.3.1 The Society will withdraw the class of a yacht in the following cases:

- at the request of the Owner
- when the causes that have given rise to a suspension currently in effect have not been removed within six months of the date of suspension. However, the Society may withdraw the class of the yacht before the end of the six-month period where it deems it appropriate. A longer suspension may be granted at the Society's discretion when the yacht is not trading as in cases of lay-up, awaiting disposition in the case of a casualty or attendance for reinstatement
- in case of transfer of ownership when the requirements under Sec 2, [11.1.1] are not complied with
- when the yacht is reported as a constructive total loss
- when the yacht is lost
- when the yacht is reported scrapped.

Withdrawal of class takes effect from the date on which the circumstances causing such withdrawal occur.

1.3.2 When the withdrawal of class of a yacht comes into effect, the Society will:

- forward the Owner written notice
- delete the yacht from the Register of Ships
- notify the flag Administration
- make the information available to the Underwriters, at their request.

1.4 Reassignment of class following class withdrawal

1.4.1 At the request of the Owner, a yacht which was previously classed with the Society, subsequently withdrawn from class and that has not been further classed i.e.

- has never resumed its trade
- has not been classified by any other Classification Society may have the class reassigned but the Society shall have the right to decline an application for re-assignment of class.

1.4.2 The reassignment of Class may take place upon satisfactory:

- removal of the causes that led to class withdrawal
- execution of the surveys expired during the period of class withdrawal
- verification of additional ascertainments as deemed necessary by the Society according to the provisions of Ch 3, Sec 2, [4.1].

The new period of Class and the validity of the Certificate of Classification will be considered by the Society on a case by case basis.

1.5 Suspension/withdrawal of additional class notations

1.5.1 If the survey requirements related to maintenance of additional class notations are not complied with, the suspension or withdrawal may be limited to the notations concerned. The same procedure may apply to service notations of yachts which are assigned with more than one service notation.

1.5.2 The suspension or withdrawal of an additional class notation or a service notation (where a yacht is assigned with more than one service notation) generally does not affect the class.

APPENDIX 1 ALTERNATIVES, RELAXATIONS AND ADDITIONAL CONSIDERATIONS FOR YACHTS OF LESS THAN 500 GT

1 IACS Procedures

1.1 Applicability for yachts of less than 100GT

1.1.1 With reference to the following paragraphs of Sec.12:

- [2.5] Assignment of a Dual Class to a yacht surveyed during construction by two QSCS Classification Societies and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1B)
- [3.2] Transfer to the Society's class of a yacht in service classed by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1A)
- [3.3] Transfer to the Society's class of a yacht surveyed during construction by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions, at yacht's delivery (IACS PR 1A)
- [3.4] Addition of the Society's class to a yacht in service classed by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions (IACS PR 1B)
- [3.5] Addition of the Society's class to a yacht surveyed during construction by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions, at the yacht's delivery (IACS PR 1B)
- [3.6] Yachts in service classed with a QSCS Classification Society but not in full compliance with all applicable and relevant IACS Resolutions or not classed with a QSCS Classification Society or not classed at all (PR1D)

alternative procedure may be applied for yacht of less than 100GT. Cases concerning yachts of 100 GT or less are dealt with by the Society on a case-by-case basis see [1.2].

1.2 Requirements for yachts of less than 100 GT

1.2.1 Applicability

For yachts of less than 100 GT the procedure PR1D may be applied or as an alternative when during the classification survey, the documentation required above is not available totally or partially, the following procedure for classification can be applied to yachts for which the following conditions exist:

- the yacht has been in service for a period of at least 6 years
- proof of satisfactory performance during the period of service exists.

Proof may consist of service records or reports or a statement which indicates a satisfactory performance, without significant failures or damage and whose authenticity is proven by signature of the master and/or the owner and/or other interested parties.

1.2.2 Survey

The extent and scope of the admission to class survey is to be not less than those required at a class renewal survey in dry-dock. The survey is to be carried out in compliance with the criteria given in Ch 3, Sec 5.

For hulls in composite material, tap tests and other NDT methods can be used, as deemed necessary.

Where the midship section is missing, a sketch of the main section with the dimensions of the main components shall be prepared during the initial survey and attached to the survey report.

1.2.3 Stability

Where the stability documentation is not available, the following criteria can be applied in alternative to those given in Pt B, Ch 6, Sec 1, [2.1] or [2.2].

a) Where the stability documentation is not complete and, for example, for the inclining experiment the documentation is missing, but the hull geometric data are available, the intact stability may be assessed considering a Kg/D value not less than 0,70m in the worst load condition. The relevant metacentric height is to be not less than 0,50 meters and the minimum freeboard is to be not less than 0,35 meters.

b) As an alternative another criterion that may be applied to assess the intact stability is based on the reference to similar hulls in order to define the following data:

Kg/D ; Z_B/D ; C_B

where

Kg is the vertical centre of gravity;

Z_B is the vertical position of the centre of buoyancy;

D is the moulded height;

C_B is the block coefficient;

Using the available plans or on-board direct measurement, the waterline area relevant to given immersion may be obtained.

The transversal moment of inertia can be obtained by integration of the above waterline area.

Assuming the C_B of a similar hull, the relevant hull volume can be calculated.

From the transversal moment of inertia and the hull volume, the transversal metacentric radius can be calculated.

At this point, the relevant value of Kg and Z_B may be calculated considering the actual value of D, by means of the quotient Kg/D, and Z_B/D obtained from the similar hull.

The value (Z_G - Z_B) can be obtained from the values of Kg and Z_B and thus the transversal metacentric height is known.

The transversal metacentric height obtained from the above procedure shall be not less than 0,40 m.

The above calculation shall be performed at least in the following loading conditions:

- Yacht in the fully loaded departure condition, with full stores and fuel and the full number of on board persons;
- Yacht in the fully loaded arrival condition, with only 10% stores and fuel remaining and the full number of on board persons.

In addition, the minimum residual freeboard is to be not less than 0,35 meters, and can be checked by means of direct on-board measurement.

2 Thickness measurement

2.1 General

2.1.1 With reference to Sec 2, [2.3.4] Approval of thickness measurement firms, the Society may evaluate other rules references for the approval of the firm that carry out the thickness measurement.

APPENDIX 2 ALTERNATIVES, RELAXATIONS AND ADDITIONAL CONSIDERATIONS FOR YACHTS OF LESS THAN 24M LLL

1 IACS Procedures

1.1 General

1.1.1 As an alternative to App 1, [1.2.3] Stability, [1.1.2] may be applied.

1.1.2 Stability

a) When applying App 1, [1.2.3] a) the minimum freeboard may be 0.25m.

b) An offset load test is to be performed.

The inclining moment is to be calculated taking into account the maximum number of persons to be embarked.

The inclining test is to be performed considering the distribution of the persons on the various relevant deck levels for which the centre is highest.

From the equilibrium between the inclining moment and the transversal righting moment, it is to be checked that:

- the minimum transversal metacentric height is to be not less than not less than 0,50 meters and the minimum freeboard shall be not less than 0,35 meters.
- under the application of the inclining moment, the angle of heel is not to be greater than the angle corresponding to a freeboard of 0,15 m before the deck's immersion or 10°, whichever is less.

APPENDIX 3 COMPULSORY TESTS ON MATERIALS, MACHI AND APPLIANCES

1 General

1.1 Materials and equipment to be assessed by Tasneef

1.1.1 As a general rule, all materials, machinery, auxiliary installations, equipment, items, etc. (generally referred to as "products"), which are covered by the class and used or fitted on board yachts surveyed by the Society during construction, are to be new and, where intended for essential services as defined in Ch 1, Sec 1, [1.2.1], tested by the Society".

1.1.2 Products which are required to be type approved by an Administration are also subject to Tasneef assessment, whenever and as far as Tasneef is recognised by or is acting on behalf of the yacht flag Administration.

1.2 Field of Application

1.2.1 These Section refer to products intended for arrangements or services in general considered "essential" in accordance with the intent of Ch 1, Sec 1, [1.2.1], as well as those for which testing requirements are stated in Statutory Standards or by other Standards applicable to the construction and outfitting of yachts.

1.2.2 In general, the testing operations and the inspections indicated in this Section are to be carried out in the Manufacturer's workshop. However, the testing operations and acceptance tests to be carried out on board during and/or after installation are also considered for those products which are completed on board or for which tests are to be carried out in connection with the final trials of the on board plants.

1.2.3 Non exclusive surveyors may be used for testing activities relevant to classification purposes, unless otherwise requested by the applicant.

1.3 Acceptance of workshop certificates and products already tested by recognised bodies

1.3.1 Where allowed, acceptance of Manufacturer's workshop certificates is subject to the originals, or identical copies, being produced and to the checking of their correspondence with the relevant products.

1.3.2 Products already tested by recognised bodies may be accepted on a case-by-case basis, using the relevant certificates and/or testing reports, provided that no additional tests are required according to the Rules and that the products correspond to the relevant certificates.

1.4 Acceptability of testing reports

1.4.1 For the purpose of product certification, the acceptability criteria of testing laboratories other than Tasneef's and relative testing reports are indicated in [6].

1.5 Identification Marking and Testing Documentation

1.5.1 Reference is to be made to [7].

1.6 Definitions

1.6.1 In addition to those in Ch 1, Sec 1, [1.2], a number of definitions of terms used for the purpose of these Section are grouped in alphabetical order in the following Tab 1. These terms are related to different aspects of the production process and product certification.

Table 1 : Glossary

WORDING	DEFINITION
Acceptance criteria	The set of values or criteria which a design, product, service or process is required to conform with in order to be accepted
Accepted	The status of a design, product, service or process which has been found to conform with specific acceptance criteria
Alteration	A change to design, product, service or process
Alternative testing scheme	Certification procedure based on a manufacturing survey arrangement between Tasneef and the Manufacturer
Applicant	A party who applies for a Tasneef service. It may be a Manufacturer, a Representative, an Importer, etc.
Approval	The examination and acceptance by the Society of documents, designs, products, procedures, services and other items related to classification and statutory certification, verifying solely their compliance with the relevant Rule requirements, or other applicable references (see also Rules Chapter 1, Section 1, [1.2.1])
Approved type	Product representative of continuous production to which it is granted permission for use based upon a satisfactory appraisal (see also Ch 1, Sec 1, [1.2.1])
Assemble	To fit together the components or parts of equipment or a system
Assess	To determine the degree of conformity of a design, product, service, process, system or organisation with identified specifications, rules, standards or other normative documents
Audit	A planned systematic and independent examination to determine that the activities relative to a process are documented, that these activities are actually performed in conformance with what is stated in the documentation and that they are properly recorded and such as to reach the contemplated objectives
Calibration	The set of operations that establish, under specified conditions, the relationship between values indicated by a measuring instrument or measuring system and the corresponding values of a measurement standard that is traceable to a National or International Standard of Measurement
Certificate	Formal document attesting compliance of a design, product, service or process with the specified requirements
Certification	Procedure whereby a design, product, service or process is approved in association with specified requirements
Class notation	Attestation that the relevant components and materials have been certified in accordance with Ch 1, Sec 2
Code of practice	Document that recommends practices or procedures for the design, manufacture, utilisation, installation, operation and maintenance of equipment, systems, structures or products NOTE: a code of practice may be a Standard, a part of a Standard or independent of a Standard
Competent person	Person deemed qualified to undertake work in a specific area by virtue of appropriate knowledge and experience
Component	Part / member of equipment or system
Conformance	Status of conformity
Conformity	Compliance of a design, product, process or service with its specific requirements
Customer	Party who purchases or receives goods or services from another
Design	All relevant plans, documents and calculations describing the performance, installation and manufacturing of a product
Design appraisal	The verification and evaluation performed by a competent Organisation. In general, it includes the drawing approval and may include a type test witnessed by an inspector
Design approval	The process whereby permission is granted for the design to be used for a stated purpose under specific conditions. It comprises design appraisal and validation, as applicable
Documentation	All written data (including drawings, procedures, specifications, etc.) necessary to describe a design, a process, a product or a service
Equipment	Part of a system assembled from components
Equivalent	An acceptable, not less effective alternative to specified criteria
Evaluation	Systematic examination of the extent to which a design, product, service or process satisfies specified criteria
Examination	Assessment by a competent person to determine compliance with requirements

WORDING	DEFINITION
Existing	Built before a date given by a national or international Standard in order to establish the start of its applicability
Fabricate	To construct or build by fitting parts together
Final test	All tests performed to accept a material, product, equipment or plant
Inspection	Examination of a design, product, service or process by an inspector in order to ascertain its compliance with specified standards or specifications
Inspector	A person competent to perform inspections
Installation	The assembling and final placement of components, equipment and sub-systems to permit operation of the system, which it is part of
International instruments	The international conventions, resolutions and circulars of the International Maritime Organisation (IMO) and international testing standards
Manufacturer	The company that produces and or assemblies the final product, and takes the whole responsibility for the final product. If the company owns more than one production site, the word “Manufacturer” means each production site. Sub-suppliers (if any) are considered as Manufacturers as far as the supplied materials, preliminary worked items or products are concerned.
Manufacturer’s affidavit	A certificate or a statement of fact issued by a Manufacturer on his sole responsibility as a result of self-inspections
Manufacture	Process of producing a product
Manufacturing process	Systematic series of processes intended to manufacture a product
Manufacturing process approval	Approval of the manufacturing process adopted by the Manufacturer during production of the specific product
Marine product	Product that has been designed, constructed and tested for use in a marine application
Marinisation	The process whereby a product that has been designed, constructed and tested for use in a non-marine application is altered or enhanced for use in a marine environment
Materials	Raw materials that will require further forming or manufacturing before becoming a product
Measurement	The process of determining the performance, size, quantity or value of a product or system
Modification	Limited change that does not affect the current approval
Mutual recognition	Result of an agreement between two or more bodies who consider that an approval or a certification granted by one of them, under specific conditions, is acceptable to the other(s)
New	Not “existing”
Notified Body	An Organisation authorised by the competent National Administration of a European Community Member State to perform certification activities on their behalf
Performance test	Technical operation where a specific performance characteristic is determined and recorded
Process	A systematic series of planned actions
Produce	See “Manufacture”
Product	Result of the manufacturing process
Product verification	Production control scheme mainly consisting of testing samples randomly taken from the production line
Production Quality assurance	Production control scheme consisting of a verification of the Quality Assurance/Control System applied by the Manufacturer to the process for manufacturing and testing the product
Prototype	A piece of equipment selected among a batch of equipment of the same type (or specially manufactured) considered as being representative of that type
Quality control plan	List of tasks of inspection to be performed during the fabrication of a product by the Manufacturer and/or by second and third party inspectors
Raw material	Material not subjected to a manufacturing process
Repair	To restore to original or near original condition the results of decay or damage
Refurbish	To restore to original or nearly original condition the results of normal wear and tear. To overhaul, refit, renovate or make a product usable again
Reject	Not to accept a project, product, service or process that has not been recognised as conforming with specified acceptance criteria
Requirements	Specified characteristics used for evaluation purposes

WORDING	DEFINITION
Revision	Alteration of one or more particulars of a design
Rework	Change that takes place after a design revision
Sample	Representative taken from a certain number / group of materials, outfitting products, equipment, etc. for testing/inspection
Self-inspection	Inspection delegated to the Manufacturer, provided some conditions are fulfilled: in particular, works and quality system are approved, and respective responsibilities are identified
Service notation	See Ch 1, Sec 2, [4]
Specifications	Technical data/particulars which determine the design and/or manufacturing and testing procedures and define the quality requirements
Specimens	Pieces taken from structural materials (such as forged steels, rolled steels, etc.) for various testing, such as mechanical strength tests
Statement of fact	An attestation as to the condition of a design, system, product or service
Sub-supplier	One who contracts to supply materials to another supplier or Manufacturer
Supplier	One who contracts to furnish materials or a design, product, service or process to a customer or user
Surveillance	The process of monitoring a product, procedure or service to ensure it continues to conform with the approved criteria
Survey	Activity carried out by a Tasneef Surveyor with free and random access to building facility at defined or occasional intervals, consisting of one or more inspections and/or surveillance to verify the compliance of a product, design, service, process or plant (including yachts or offshore installations or parts thereof) with specific requirements (see also Ch 1, Sec 1, [1.2.1])
(Tasneef) Surveyor	Competent person (appointed by Tasneef) to perform surveys (see also Ch 1, Sec 1, [1.2.1])
System	A plant composed of a number of components suitably interfaced to each other
Test	A technical operation that consists of the determination of one or more characteristics or performance of a given product, material, equipment, organism, physical phenomenon, process or service according to a specified procedure
Traceability	Ability to follow back through the design and manufacturing process to the origin
Type approval	The process at the end of which a Type Approval Certificate is issued (see also Ch 3, Sec 1, [1.2])
Type tests	Tests carried out on a prototype to validate the design and to ascertain the conformance of the finished product with the design (they may be destructive tests)
User	A person, company or organisation intending to use a specific product
Validation	Last step in the design process, to verify the effectiveness of the design in fulfilling the established purpose. Usually, this is done by a re-check of drawings and calculations and/or by extensive prototype testing (even destructive tests, if necessary) carried out by a person not involved in the design performance or in the normal routine inspection
Vendor	A party who sells or delivers a design, product, service or process to another
Witness	To be present at a test and to be able to give evidence about its outcome
Workmanship	The quality of a product which is the result of the art or skill of a workman and/or the degree of skill and care expended in carrying out a task related to the production and/or finish of a product

2 Certification schemes

2.1 Applicability

2.1.1 The purpose of this paragraph is to describe the general procedures to be adopted to certify a marine product.

The procedures indicated in this paragraph deal with all possible steps of document reviews, inspections and tests that might be necessary for the certification of a generic product. However, for specific products, not all the steps described are applicable as a whole. The other Section of the Rule indicate in detail which operations are mandatory among those stated in [2] for each particular product (see also Tables from A to S).

2.2 Certification schemes

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2.2.2 These Rules provide for three certification schemes, as follows:

a) individual (or traditional) inspection scheme, dealt with in [3]

b) alternative inspection scheme, dealt with in [4]

c) type approval schemes, dealt with in [5].

Upon satisfactory completion of all the applicable reviews and inspections, Tasneef issues a certificate stating that the product has been designed and used in accordance with the Rules and/or Tasneef recognised Standards.

2.3 Technical documentation review and inspection procedures

2.3.1 Approval of technical documentation

The technical documentation is to be prepared by the Manufacturer in accordance with the applicable Rules and is to be submitted to Tasneef.

The technical documentation is to make it possible to understand the design, manufacture and operation of the product, and to assess compliance with the requirements of the Rules and the applicable Standards.

The documentation is to include, so far as they are relevant to assessment and as far as applicable:

a) a general description of the product;

b) the conceptual design, the building Standard, the manufacturing drawings and the schemes of components, sub-assemblies, etc.;

c) descriptions and explanations necessary for the understanding of drawings and schemes, including the operation of the product;

d) the results of design calculations made, examinations carried out, etc.;

e) preliminary test reports, if any;

f) manuals for installation, use and maintenance;

g) control and test procedures.

Where appropriate, the design documentation is to contain also the following:

a) attestations and certificates relating to the equipment incorporated in the appliance as components,

b) attestations and certificates relating to the methods of manufacture and/or inspection and/or monitoring of the product,

c) any other document that might be required by Tasneef to improve its assessment.

Where, upon completion of the examination, the documentation is found to be satisfactory, Tasneef forwards to the Manufacturer an approval letter in which the conditions of the approval (if any) are stated and returns the approved drawings (if any) appropriately stamped.

2.3.2 Type tests

The purpose of type tests is to validate the design of the prototype. Accordingly, the type tests are generally more extensive than those required for the normal production testing and may include destructive tests.

Whenever required by the Rules, the test procedures are to be submitted to Tasneef for approval or information, as applicable.

The type tests are to be carried out on a purpose- manufactured prototype or on sample products randomly taken from the production line. In the latter case the specimens that are to be selected for type tests are defined and identified in accordance with procedures agreed with Tasneef.

The tests are to be performed at the Manufacturer's facilities, at an independent laboratory acceptable to Tasneef (see Chapter 5), or at the Tasneef laboratory. Where the tests are not performed at the Tasneef laboratory, they are to be witnessed by the Tasneef Surveyor, unless otherwise stated in the applicable Rules. Tasneef may consider accepting on a case-by-case basis tests carried out by independent laboratories and not witnessed by a Tasneef Surveyor.

Where one or more tests have been not carried out in the presence of Tasneef Surveyors, the relevant complete test reports are to be submitted to Tasneef, which reserves the right to require the repetition of those tests for which the documentation is incomplete or, in any event, unacceptable.

At the end of the tests attended by a Tasneef Surveyor, the latter issues a report on the tests carried out and/or endorses the test laboratory's report.

2.3.3 Manufacturer and manufacturing process approval

Whenever the Rules require the approval of the manufacturing process, the Manufacturers and their individual workshops, where the process is carried out, are to be approved by Tasneef.

The criteria and the requirements relative to the approval of Manufacturers and manufacturing processes are indicated in detail in the Tasneef "Rules for the approval of manufacturers of materials".

2.3.4 Material testing

Material testing is to be performed in accordance with the requirements of the Rules and the Standards applicable to the material and the product which is intended to be built. In general, material testing certificates are to be made available to the Surveyor.

Whenever required by the Rules, the Tasneef Surveyor attends the material testing.

The testing and measuring equipment is to be properly calibrated and kept in good condition. Records of calibration are to be kept and made available to the Surveyor, whenever requested.

The chemical composition of the materials is to be determined and certified by the raw material supplier, using ladle-sampling analysis. The laboratory that performs the analysis is to be adequately equipped and the analysis is to be performed by qualified personnel.

The chemical analyses of the Manufacturer are generally accepted. However, they are subject to occasional checks, where required by the Surveyor.

Where deemed necessary by The Society, material testing witnessed by the Surveyor may be required.

2.3.5 Attendance at workshop

During the fabrication, Tasneef Surveyors are to have free access to all departments involved in production, collection of test samples, internal control and, in general, all operations concerning the inspection, in order to ascertain whether the quality of the workmanship is satisfactory, the product is fabricated in accordance with the approved drawings and specifications, the materials and welding consumables have been suitably certified, and the intermediate sampling and testing are correctly performed.

2.3.6 Final inspection at workshop

In general final inspection of a product at workshops includes, as far as applicable for the specific product:

a) document review,

b) visual examination,

c) verification of compliance with approved plans,

d) dimensional checks,

e) non-destructive examination.

The visual examination and the dimensional checks, which are to be performed on all products before delivery, are carried out by the Manufacturer acting on his own responsibility.

Unless otherwise specified, the visual examination is also to be performed by the Surveyor on each item for products tested individually and on an adequate number of samples taken randomly from a production lot for products built in large series.

The dimensional checks and the verification of compliance with approved plans are carried out by the Surveyor solely for those parts of the products which are subject to the approval or for which there are specific requirements in the Rules.

Non-destructive tests are to be performed by skilled and qualified personnel using adequate and properly calibrated instrumentation and, when required, in the presence of the Tasneef Surveyor.

2.3.7 Final testing at workshop

In general, final testing at the workshop may include, as far as applicable:

a) final testing of a completed product (for instance hydrostatic test of a pressure vessel),

b) performance test (for instance a reduction gear running test),

c) collection of data (for instance performance data for an engine),

depending on the type and complexity of the product, as required by the Rules or by the applicable Standards.

2.3.8 Installation on board

Installation on board of products and their assembly into plants and systems are to be surveyed in a similar way to that indicated in [2.6] and [2.7] for the attendance and final inspection at the workshop.

2.3.9 Testing on board

Testing on board of equipment and materials is to be performed, in a similar way to that indicated in [2.3.8] for testing at workshops, in connection with the testing and trials of the installations which the products or materials are part of.

3 Individual certification scheme

3.1 General

3.1.1 The individual certification, or traditional inspection, scheme (CT) applies when all the applicable inspection and testing, among those listed in [2.3], as prescribed by the Rules and applicable Standards, are witnessed by the Tasneef Surveyor.

4 Alternative certification scheme

4.1 General

4.1.1 The alternative certification scheme (**CA**) is a certification scheme involving a Manufacturer (and associated sub-suppliers, if needed) in the inspection, testing and certification of the Manufacturer's products.

For the scope of this article, the Manufacturer may also be an importer or vendor which takes the whole responsibility for the testing process.

4.1.2 This alternative system, which is established by taking into account the type of product, its mass production and the Manufacturer's organisation in terms of production and quality control, allows the testing operations to be totally or partially delegated to the Manufacturer.

4.1.3 The admission to the alternative certification scheme is granted subject to verification that the Manufacturers are properly qualified, and maintenance of its validity is subject to the satisfactory outcome of periodical and random checks.

4.1.4 Depending on the type of product, Tasneef may require the attendance of Tasneef Surveyor during manufacturing and at final tests, according to an inspection plan previously established.

4.1.5 Scope

a) An alternative certification scheme (**CA**) may be arranged with product Manufacturers and/or sub-suppliers.

b) A **CA** with a Manufacturer is to define the handling of subcontracted parts (those that require Tasneef or work certificates, or in any other way are addressed in the Tasneef's Rules).

c) The sub-supplier may be included in the **CA** of the Manufacturer or have his own **CA** or deliver parts that are inspected and certified by Tasneef according to the CT certification scheme.

d) A **CA** that permits the Manufacturer to carry out all or parts of required inspection and testing without the presence of a Tasneef Surveyor may be arranged in two versions with regard to traceability:

- the Statement of Admission to the **CA** describes inspection, testing and certification additional to the Manufacturer's standard quality control in order to meet the Rules. The components are to be stamped with a special stamp supplied by Tasneef (ref. to Chapter 4, Figure 2) or identified as required by Tasneef;
- the Manufacturer has a standard quality control that covers all required inspection, testing and certification in compliance with the Rules. Traceability and the required type of product document for components or products will be defined in the Statement of Admission to the **CA**.

4.1.6 Conditions for admission

The conditions for the Manufacturer to be granted the permission to carry out inspection and testing without the presence of a Tasneef Surveyor are that:

a) the Manufacturer has an implemented Quality System according to a national or international standard approved by an accredited certification body or recognised by Tasneef;

b) the Manufacturer has a quality control system, current drawings, and Tasneef Rules and standards that cover the product to be certified;

c) the inspection and testing required by the Tasneef Rules are either standard procedures in the Quality System and recognized by Tasneef or specified in detail in the Statement of Admission to the CA;

d) Tasneef initially ascertains the Manufacturer's compliance with the CA requirements by verifying the required product and process approvals and performing an initial audit. Follow-up and renewal audits are conducted by Tasneef on a regular basis to verify that conditions of the CA are continuously maintained by the Manufacturer;

e) if work certificates (W) or test reports (R) are found not to fulfil the standards agreed with Tasneef, the component may not be accepted;

f) the agreed CA may be suspended or cancelled when / if found justified by Tasneef;

g) Tasneef may carry out unscheduled inspections at the Manufacturer and/or subcontractor at its own discretion;

h) the Manufacturers (and designers, if producing under license) commit themselves to involve Tasneef when changes to the design, manufacturing process or testing are made as well as when any major production problems or any major product delivery problems have occurred.

4.1.7 The alternative certification scheme applies to the testing operations carried out at the Manufacturer’s workshop. Drawing approval prototype tests and initial approval tests, when required, are to be carried out by Tasneef.

4.2 Admission

4.2.1 For admission to an alternative testing scheme for a product, the Manufacturer is to submit an application enclosing the following documentation:

a) product details,

b) existing Tasneef approvals of the Manufacturer's products, as far as required,

c) the procedures relevant to the manufacturing process,

d) a list of material suppliers with an indication of their class approval (as far as required by the Rules) and the type of material certification in each case,

e) quality control plans relevant to the products and relevant components to be certified through the alternative certification scheme. Said plans are to detail the inspections and tests required by the Rules with an indication of which inspections and tests are delegated to the Manufacturer and which are to be done in the presence of the Tasneef surveyor,

f) the procedures relevant to the quality control and inspections, their methods, frequency and certification,

g) the list of suppliers of materials and main components of the product, including certificates,

h) the quality system details,

i) list of nominated personnel for:
   - marking/stamping of products
   - tests and Inspection (responsible)
   - provision of data and information (e.g. declaration of conformity, test reports etc.),

j) any other additional documents that Tasneef may require in order to evaluate the manufacturing processes and product quality control.

4.3 Assessment

4.3.1 Upon examination of the admission application, including the enclosed documentation, and subject to its completeness, an initial audit is to be carried out to the Manufacturer's workshop in order to:

a) verify that the manufacture of the product and the relevant controls are performed in accordance with the documents submitted and in compliance with the requirements of the applicable Rules,

b) check the actual organisation of the workshop, its departments and relevant connections and the global manpower,

c) be acquainted with the main equipment used for manufacturing the product,

d) verify the conformity of the Quality System with the reference documents,

e) witness the performance of inspections and tests carried out by the Manufacturer on products being manufactured.

4.3.2 As far as incoming materials and components are concerned, Tasneef, in relation to their importance, may:

a) perform checks at the vendor’s workshop,

b) carry out tests on the materials and products concerned.

4.3.3 Upon satisfactory outcome of the audit, a statement of admission to the alternative testing scheme is issued to the Manufacturer. The statement includes the necessary information relevant to the scope of **CA**, as per [4.1.5], and the testing procedures.

4.3.4 The type and frequency of the tests and checks to be carried out in the presence of Tasneef Surveyors, when required (see [4.1.4]), are to be included in the statement.

4.4 Admission validity

4.4.1 The validity of the admission to the alternative testing scheme is five years from the date of completion of the initial audit at the Manufacturer's premises.

4.4.2 During the period of admission to the alternative testing scheme, Tasneef performs intermediate audits to verify that the conditions found during the initial audit [4.3.1] are effectively maintained during the production. In general, the number of these intermediate audits is established in connection with the issuance of the statement of admission to the alternative testing scheme.

At least one intermediate audit during the period of validity of the CA is to be carried out. Additional audits may be required at the discretion of Tasneef.

Intermediate audits may coincide with tests and checks to be carried out in the presence of Tasneef Surveyors (see [4.1.4]).

4.4.3 During the period of validity, further intermediate audits and/or product checks may be required by Tasneef in addition to those indicated in [4.4.2] depending on the type of product to be produced.

4.4.4 At the time of such controls, the Tasneef Surveyor may require tests and checks of components of particular importance selected at random from those in stock or being processed or assembled.

4.4.5 During the period of validity, the admission to the alternative certification scheme may be extended to other types of products manufactured at the same premises with the same fabrication and test procedures which have been accepted, upon satisfactory review of the technical documentation and, if necessary, performance of a type test.

4.4.6 On expiry of its validity, admission to the alternative certification scheme can be renewed for an additional five years upon the satisfactory outcome of a new audit of the Manufacturer's workshop.

The scope of the renewal audit is to:

- verify the conditions of the **CA** are still met;
- verify that the current products and processes are appropriately controlled.

4.4.7 Upon satisfactory completion of the required checks and verification, a statement of renewal of the admission to the alternative testing system is issued.

4.5 Conditions for maintenance of CA

4.5.1 During the period of validity of the admission to the alternative certification scheme, the Manufacturer is to keep unaltered the initial conditions ascertained during the assessment.

4.5.2 The Manufacturer is to allow Tasneef Surveyors free access to workshops and in particular to Quality Control Department at any time, for the purpose of verifying that the manufacturing control procedures of the product and of its main components are the same as those ascertained during the first audit.

4.5.3 The Manufacturer is to inform Tasneef of any modification relevant to:

a) design characteristics of the product,

b) manufacturing and control procedures of the main components,

c) suppliers of the main components.

In relation to such modifications Tasneef may require an additional assessment.

4.6 Suspension or withdrawal

4.6.1 Tasneef may suspend or withdraw admission to the alternative certification scheme in the following cases:

a) non-compliance with the conditions mentioned in [4.5] above,

b) repeated unsatisfactory results of tests, checks and inspections carried out on the product or on its main components,

c) objective evidence of in service repeated breakdowns on the products due to causes that may be attributed to the Manufacturer. In such cases, the admission will be suspended until the Manufacturer provides a reliable and proven corrective action to eliminate the causes of the breakdown,

d) modification of the Tasneef Rules relevant to the testing of products,

e) non-payment of Tasneef fees by the Manufacturer.

5 Type approval

5.1 Applicability

5.1.1 This Chapter indicates the general criteria and procedures for the issuance of a Tasneef Type Approval Certificate. It applies both to type approval of equipment and to software products.

It applies both to products for which type approval is required by the Rules and to products for which, while there are no specific requirements in the Tasneef Rules, type approval certification is requested by the Manufacturer on a voluntary basis.

5.1.2 Type approval

In general, a type approved product is a product which has been subjected to a design approval process intended to verify its compliance with the applicable Rules.

The approved process of a product for which there are no specific requirements in the Rules, but for which type approval certification is requested by the Manufacturer on a voluntary basis, is established against Standards and/or specifications agreed with the Manufacturer on a case-by- case basis.

5.1.3 Production control

In general, production control is an optional certification process which integrates the type approval certification process. Such production control certification may be granted using one of the following schemes:

- Product verification
- Production quality assurance.

The selection of the production control scheme depends on the type of product and/or the Manufacturer's choices. It is to be agreed with Tasneef.

Unless otherwise specifically stated in the Rules, products bearing a production control certificate may be installed on Tasneef classed yachts without any further acceptance test.

In general, the production control scheme applies to products which are mass produced.

5.1.4 Applicants other than Manufacturers

While the process for type approval (design approval) is not affected by the Applicant's identity pro- vided the requirements in [2] are satisfied, the production control process may require different procedures depending on the actual relation between the Applicant and the Manufacturer.

5.2 Design approval process

5.2.1 Application

The Applicant for a Tasneef Type Approval Certificate is to submit an application to Tasneef specifying the full information necessary to identify the Manufacturer and its production sites, and the type of certification requested.

The application is to include the technical documentation related to the product listed in [2.2].

5.2.2 Design approval

The design approval process is to be carried out as indicated in Chapter 2, [2.1], [2.2], and [2.3].

5.2.3 Testing report and issue of the certificate

At the end of the type tests a testing report identified by number and date is to be prepared.

At least the following information is to be included in the report:

a) description and identification of the product;

b) identification of the testing specifications;

c) description of testing equipment and measuring instruments (for the instruments the identification numbers and the last calibration date are to be indicated);

d) environmental conditions during test execution;

e) test results, including any negative results.

The report is to be signed by the laboratory manager (or his deputy) and by the Tasneef Surveyor who attended the tests.

Upon receipt of the report, stating the satisfactory results of the tests, in the case of TA certification scheme, an initial audit and system evaluation of the Manufacturer's production site is to be scheduled.

Should the outcome of the drawing review or prototype tests be negative, the Applicant cannot apply again for certification until the product has been modified in such a way as to correct the causes of the deficiencies detected.

5.2.4 Validity of the certificate

The certificate validity period depends on possible specific requirements of the Standard used as a reference for the certification. Whenever there are no different specific requirements in the reference Standards, the certificate validity is fixed at five years if requirements of [3] and [4] are complied with. As an alternative the validity of the certificates can be reduced to 3 years provided that an intermediate test on products is carried out to verify the compliance with the reference standards agreed between Tasneef and the Manufacturer on the basis of the product complexity and production size.

The validity period starts from the date indicated on the certificate.

The certificate is renewed at the end of its validity period. In general, the repetition of the type test is not requested for the renewal of the certificate. However, Tasneef reserves the right to request the repetition of all or part of type tests, whenever this is provided for by the reference Standard or dictated by case-by-case considerations.

5.2.5 Variations of a certified product

If the Manufacturer intends to modify a certified product, Tasneef is to be informed of all the contemplated modifications. If such alterations are such as to affect the conformance of the product with the main characteristics of the type test prototypes, a new certification procedure will be considered by Tasneef for the modified product.

If the modifications do not affect those aspects which are ruled by the Standards applied for the certification, an approval extension may be granted by Tasneef as a supplement to the original certificate, if applicable.

5.3 Product verification scheme

5.3.1 General

The product control is to be performed at the Manufacturer's facility, unless otherwise indicated in [5.3.3].

A Manufacturer without a certified Quality Assurance System is only to apply for the product verification scheme in order for a production Control Certificate to be granted to its products.

5.3.2 Periodical surveys

A Tasneef Surveyor performs periodical surveys at the Manufacturer's facility with a frequency which is agreed between Tasneef and the Manufacturer on the basis of the product complexity and production size.

During the survey, a number of samples are to be taken at random from the production line to the satisfaction of the Surveyor. The number to be taken at each survey is also defined by the size and complexity of the production as well as by the type of product.

The samples are tested in the presence of the Surveyor as indicated in the Standards applied for the type approval certification and/or as specified in the design approval letter.

In general, for continuous large mass production, the frequency of the surveys is not to be less than one survey every two months, unless otherwise agreed on a case-by- case basis with Tasneef.

In the case of non-continuous production, no surveys are necessary in those periods in which the production is suspended. However, irrespective of the agreed frequency of surveys, at least one survey at re-starting is to be carried out each time production resumes. During these surveys, the Surveyor checks the documentation of the Manufacturer to ascertain that the production was actually suspended in the previous period.

5.3.3 Cases of Applicants other than Manufacturers

When an Applicant acts on behalf of a Manufacturer, the surveys indicated in [5.3.2] are to be performed at the Manufacturer's facility and the of Production Control Certificate is addressed to the Manufacturer. When an Applicant acts on its own behalf (as for instance an importer who requires production control certification solely to market the

product in a certain country under its own brand), the certificate may be issued accord- ing to one of the following procedures.

a) The Applicant obtains from the Manufacturer the free access of a Tasneef Surveyor to its production line in order to carry out the surveys stipulated in [3.2]. In this case the certificate may cover the whole of the Manufacturer's production and may be addressed either to the Applicant or to the Manufacturer, depending on their commercial agreement.

b) When it is technically feasible, the Applicant allows the Tasneef Surveyor to carry out the required tests at the required frequency in laboratories or facilities accept- able to Tasneef on all products marketed by its firm. In such case, the certificate is addressed to the Applicant, using its brand name, and covers only that part of the Manufacturer's production which is marketed by the Applicant. Such products are to be clearly and solely identified by means of stamps, serial numbers or other means which may be effective to prevent any possibility of confusion between the type approved products and other products made by the same Manufacturer.

5.3.4 Issue of the certificate

At the end of the first survey at the Manufacturer's facility, Tasneef grants a Production Control Certificate.

If necessary, the certificate may have an Annex listing the tests carried out and the possible limitations for the use of the product.

In the case of alteration of the production lines and methods, the Applicant is to inform Tasneef of all the production procedure alterations so that it may evaluate whether a survey is to be performed to verify that such alterations do not affect the conformance of the product with the main characteristics of the prototypes.

5.3.5 Non-conforming products and suspension of certification

In general, whenever during a survey one or more samples are found to be non-conforming, the tests are to be repeated on a further number of samples equal to at least twice that initially selected.

If a serious non-conformance of the product is reported from the field, which might lead to danger or become a source of risk, Tasneef reserves the right to suspend the certificate immediately without repeating any additional test.

Suspended certificates are to be returned to Tasneef.

The Applicant cannot apply for the cancellation of the suspension or for a new certificate until the product and/or its production procedure have been modified in such a way as to prevent the repetition of the non-conformity.

5.4 Production quality assurance

5.4.1 General

In order for this scheme to be applied, the Manufacturer is to have in place a Quality Assurance System at least equivalent to one of the ISO 9000 Standards.

5.4.2 Quality Assurance System

All Manufacturers' programs, working procedures and instructions are to be documented in writing. This writ- ten documentation is to be such as to permit a uniform interpretation of programs, planning, manuals and other quality documents.

The Quality System documentation is to include an adequate description of:

a) the quality objectives, organisation charts, managers' and heads' responsibilities and powers in matters that may affect the final product quality;

b) the fabrication methods, quality control techniques, processes and systematic actions intended to be applied;

c) the checks and tests to be carried out before, during and after fabrication, with indication of their frequency and acceptability criteria;

d) the quality documentation, including inspection reports, calibration data, personnel qualifications, etc.;

e) the criteria adopted to continuously verify that the product complies with the requested quality level and to verify the operation of the quality assurance system.

5.4.3 Evaluation criteria

Major findings are those related to:

a) any non-conformity resulting in the delivery of a product so defective as to make impossible or reduce its use or to be dangerous or to become a source of risk;

b) deficiencies in the Quality Management System possibly leading to the risk that products with defects similar to those indicated in a) might be delivered before a corrective action rectifies the detected non-conformity;

c) a non-conformity already detected with a minor finding not properly closed.

d) any alterations to the project, construction procedures and/or materials of certified products without prior notification to Tasneef.

Minor findings are considered those related to:

a) any non-conformity resulting in the delivery of products with defects not so serious as those described in [4.3.1]a);

b) deficiencies in the Quality Assurance/Control System that do not generate the risk that products with defects similar to those indicated in [5.4.3] a) might be delivered before a corrective action rectifies the detected non-conformity.

5.4.4 Evaluation of Quality Assurance System

The evaluation of a Quality System is considered satisfactory when major non-conformities are not detected.

In general, the closure of major non-conformities would require an audit to verify the efficiency of the corrective actions taken by the Manufacturer, while a document examination might be sufficient to close minor non-conformities. However, the final evaluation of whether or not a further audit is necessary to close the non-conformity is left to Tasneef, depending on the actual complexity of the Manufacturer's quality assurance system and the type of product being manufactured.

Where a non-conformity identified by a major finding cannot be closed within the agreed time, the audit is considered failed, and a new audit of the whole system is to be performed.

5.4.5 Manufacturers with Quality Assurance System certified by Tasneef

5.4.5.1 Documents to be submitted

The quality control plans relative to the product(s) to be certified are to be submitted.

5.4.5.2 Surveillance cycles

The issue and validity of Production Control Certificates are subject to the satisfactory results of a surveillance cycle consisting of an initial survey followed by semi-annual audits of the line(s) of production of the certified product(s).

Different surveillance cycles may be agreed on case-by- case with Tasneef depending on the peculiarity of the product or products to be certified and/or considering the control program implemented by the Manufacturer during fabrication.

5.4.5.3 Initial audit and system evaluation

a) The purpose of the initial audit is to evaluate the effectiveness of the Manufacturer's Quality Management System as applied to the production line(s) of the product(s) to be certified.

b) In general, as far as possible, the audit is to be scheduled so that it may be performed during actual manufacturing of the product.

c) Particular attention is to be paid to the following documentation relative to the product(s) or products to be certified:
   - quality control plans;
   - internal audits;
   - testing reports on the product(s) to be certified;
   - calibration records of testing and measuring instruments.

d) During the audit the various steps of fabrication and acceptance of the products are to be observed in order to verify the application of the quality assurance and quality control procedures to the product.

5.4.5.4 Periodical audit

a) The scope of the periodical audits is to verify that the manufacturing, inspection and testing procedures noted during the initial audit are effectively followed during the production,

b) The periodical audits are to be performed within a window of 30 days before and 30 days after the due date. The due dates are calculated from the date of the certificate.

c) During the periodical audits the same aspects indicated in [5.4.5]3)c) are verified. In addition, the quality records relative to the products manufactured since the previous audit are reviewed.

5.4.6 Manufacturers without a certified Quality Assurance System

a) In order for a Manufacturer without a certified Quality Assurance System to be entitled to apply for the Production Quality Assurance scheme for production control, it is to apply at the same time for the evaluation of its Quality Assurance System.

b) Documents to be submitted

   Before the audit, the Manufacturer is to submit to Tasneef the following documentation:
   - the quality control plans relative to the product(s) to be certified,

- all procedures relative to the Manufacturer's Quality Management System,
- a written commitment to comply with the requirements for implementing the Quality Management System and to keep it adequate and efficient.

c) Surveillance cycles

The issue and the validity of Production Control Certificates are subject to the satisfactory results of a surveillance cycle as described below.

d) Initial audit and system evaluation

1) The purpose of the initial audit is to evaluate the Manufacturer's Quality Assurance System and to verify its functioning when it is applied to the production line(s) of the product(s) to be certified.
2) In general, the audit is to be scheduled during actual manufacturing of the product(s).
3) The initial survey consists of the following phases:
   - initial survey for the evaluation of the Manufacturer's Quality System with an extension equivalent to a normal initial survey for the certification of a Quality Assurance System;
   - verification of the production line similar to that described in [5.4.5] 4) for Manufacturers with Quality Assurance System certified by Tasneef.
4) If the Manufacturer's Quality Assurance System is not satisfactory, the Production Control Certificate cannot be issued unless the Manufacturer requests certification using the product verification scheme.

e) Periodical audits

1) The purpose of the periodical audits is to verify that the Quality Assurance System applied by the Manufacturer to the production line(s) of the certified product(s) continues to work adequately.
2) The periodical audits are to be performed within a window of 30 days before and 30 days after the due date.

   The due dates are calculated from the date of the certificate.
3) The typical surveillance cycle includes annual and semi-annual audits as follows:
   - During the annual audits, a verification of the Manufacturer's Quality System similar to a periodical audit for a certified Quality Assurance System is performed plus a verification of the production line(s) of the certified product(s) similar to that described in [5.4.5] 4) for Manufacturers with a Quality System certified by Tasneef.
4) Different surveillance cycles may be agreed on case-by- case with Tasneef depending on the peculiarity of the product(s) to be certified and/or considering the control program implemented by the Manufacturer during fabrication. In particular, the semi-annual survey of the pro- duction line might be considered unnecessary for simple products and based on the Manufacturer's inspection program during construction.

5.4.7 Manufacturers with Quality Assurance System certified by recognised Organisations others than Tasneef In principle the provisions of [5.4.6] apply to these Manufacturers. However, a reduction of the scope of the initial and annual Quality Assurance audits may be considered on a case-by-case basis.

5.4.8 Manufacturers with products already certified by Tasneef

If a Manufacturer who already produces products with a Tasneef Type Approval Certificate based on the Pro- duction Quality Assurance scheme applies for the certification of additional product(s), once the design has been approved the initial survey may not be performed provided the quality control plans relative to the new product(s) have been found satisfactory.

5.4.9 Applicants other than Manufacturers

The Production Control Certificate cannot be issued using the Production Quality Assurance scheme, unless the Applicant grants Tasneef authorisation to perform the surveillance required in [5.4.5], [5.4.6], [5.4.7] and [5.4.8], as applicable, at the Manufacturer's facility. However, in this case the Pro- duction Control Certificate will be addressed to the Manufacturer.

5.4.10 Issue of the Certificate

At the end of the first visit at the Manufacturer's facility, Tasneef grants a Production Quality Assurance Certificate.

5.4.11 Suspension of certification

Where a major non-conformity cannot be solved in the agreed time-frame or the non-conformity is such as to affect the quality of the product, Tasneef will immediately suspend the certificate for all those products which might be affected by the non-conformity.

The certificate will be considered valid again once the causes of the non-conformity have been removed and the corrective action taken has proved to be effective.

Products manufactured during the suspension period may retain their certification provided they are tested in accordance with the product verification scheme indicated in [3].

5.5 MED Type Approval

5.5.1 General

The products listed in the applicable implementing Regulation of the European Directive 2014/90/EU, intended to be installed on yachts flying European Community flags on yachts of an Administration requiring the a.m. Directive, are to be certified in accordance with the requirements of the Tasneef "Rules for the certification of marine equipment in accordance with European Directive 2014/90/EU and sub- sequent amendments".

5.5.2 Equivalence between MED type approval and Tasneef type approval

All certificates issued by Tasneef for products in compliance with European Directive 2014/90/EU and the applicable implementing Regulation are considered equivalent to Tasneef Type Approval and Production Control Certificates, as applicable, issued in accordance with the applicable requirements of [5.3] and [5.4], unless otherwise indicated for specific products.

5.6 Type approval on behalf of flag Administrations

5.6.1 General

Procedures for type approval certification by Tasneef of products on behalf of flag Administrations are established on a case-by-case basis depending on particular agreements between Tasneef and the flag Administration.

5.7 Type approval of software products

5.7.1 General

The Rules for the Classification of Yachts foresee the use of management software systems and/or software systems as an aid to calculations.

5.7.2 Field of application

These Rules apply, for the purpose of type approval, to software systems used in the marine field where their use is allowed by the Rules in force.

Tasneef reserves the right not to certify software which it deems is outside its field of activity and for which it does not possess the necessary competence.

5.7.3 Scope of the activity

The activities consist of the following:

a) identification of the components of the program considered for certification and associated information;

b) review of the documentation related to the program;

c) description of the tests to be carried out on the program and its components;

d) review of the input, use of the program and control of the output to verify that it meets the requirements of the certification requested;

e) documentation of the tests carried out and associated results.

5.7.4 Documentation and software required

In order to be able to carry out the above reviews, the Applicant is to provide the following documentation and software:

a) user manual, generally including:
   - general information about the system and field of application;
   - limitations, conventions used, conditions of use;
   - description of the input;
   - description of the output;
   - procedures for the use of the program.

b) system documentation, generally including:
   - logic flow;
   - structuring of the data;
   - input / output formats;
   - description of the interfaces and algorithms.

c) verification documentation (containing at least one test case).

- The test cases consist of a series of examples (related to realistic cases) with the relative input and output data produced. A test case is to be provided for each module of the program.
- Tasneef may give indications concerning a suitable selection of test cases or accept a series of test cases proposed by the customer, reserving the right to possibly require additional test cases, if necessary to complete the checks.

d) installation program.

- the data in electronic format to make it possible to repeat the steps foreseen in the verification documentation.

e) documentation relevant to the Quality System with particular reference to:

- tests, controls and management of the source code;
- any qualification report of the personnel responsible for the tests.

5.7.5 Checks and tests

The activities are performed by exclusive Tasneef personnel under the supervision of a person in charge.

5.7.5.1 Tests

In the light of the above, the activities proposed are the following:

- review of the documentation related to the software
- review of the input, use of the program and control of the output for the series of test cases foreseen. The output is to be essentially the same as that expected.

Tasneef reserves the right to require any additional tests if considered necessary for the assessment.

5.7.6 Issue and validity of Type Approval Certificate

Once the checks and tests required have been satisfactorily completed, Tasneef will issue a Type Approval Certificate valid for the software system tested.

The Type Approval Certificate issued is valid for the software version tested for five years from the date of issue of the certificate.

If a new version of the software is released during the period of validity of the certificate, the Applicant is to inform Tasneef, which reserves the right to carry out further tests and request additional documentation related to the modified part of the program in order to issue a certificate renewal.

Any change made to the software without prior communication to Tasneef will automatically lead to suspension of the certificate.

5.7.7 Renewal of Type Approval Certificate

To renew the Type Approval certificate, the documentation in [5.7.5] is to be sent to Tasneef with any modifications compared to that submitted for the previous approval.

On the basis of the review of this documentation, Tasneef will establish the tests and checks necessary to renew the Type Approval Certificate.

6 Criteria for the acceptance of tests carried out by laboratories

6.1 General

6.1.1 This paragraph supplies the criteria for the acceptance of testing reports produced by laboratories others than Tasneef's, for the use of Tasneef Surveyors in connection with the performance of their activities.

6.1.2 Field of application

This paragraph applies both to tests carried out by laboratories in the presence of Tasneef Surveyors and to tests for which the Rules do not require the presence of the Surveyor during their performance.

6.1.3 Calibration certificates

The calibration certificates relative to the instruments and equipment used for testing are to be made available to Tasneef Surveyors.

6.2 Criteria for the acceptance of test laboratories that perform tests attended by Tasneef Surveyors

6.2.1 Premise

In general, the Rules have no specific requirements on the characteristics and qualifications of laboratories where tests requiring the attendance of the Society Surveyors are performed, as it is presumed that the Surveyor's attendance can in most cases guarantee the reliability of the tests that are necessary for the certification of materials, machinery and equipment for which there are specific Rule requirements.

However, this presumption is not always correct when the tests require sophisticated equipment and technologies.

For the acceptance of tests and reports of laboratories other than the Society's, it is therefore necessary to consider two cases, as specified in [6.2.2] and [6.2.3].

6.2.2 Tests not requiring sophisticated procedures or equipment

For the scope of this paragraph the word "laboratory" is used not only for an equipped laboratory (either independent or owned by the Manufacturer) but also for a simple testing machine used in the field to perform tests or trials required by the applicable Rules.

If the tests are performed in the presence of Surveyor of the Society, it is not necessary for the laboratory to be recognized or qualified by the Society or by other Organisations, provided the following conditions are complied with:

a) they are mechanical tests which do not require sophisticated control/monitoring equipment (for instance, tensile tests, impact tests, bend tests, etc.);

b) they are electrical tests that may be performed with common equipment (voltage, current resistance measures, etc.);

c) they are hydraulic tests carried out with normal instruments (pressure gauges, flow rate gauges, etc.);

d) they are dimensional measures performed with common instruments (callipers, micrometers, angle gauges, thickness gauges, etc.);

e) they are performance tests where the functioning parameters are easy to evaluate;

f) they are simulation tests where all input and output parameters are easily evaluated;

g) they are sophisticated tests which are supported by detailed manuals explaining the inputs and outputs and the means to check the accuracy of the tests, as well as the methodology to perform sample testing in the presence of the Surveyor.

However, for any of the above cases, it is always to be possible for the surveyor to check that the instruments are calibrated against national or international Standards, that the instruments and testing machines are kept in good order and that testing is properly performed using instruments adequate to the accuracy required by the measure.

6.2.3 Tests requiring sophisticated procedures or equipment

Where the tests to be performed require the use of sophisticated equipment, technology and/or technical knowledge not provided for by any of the cases listed in [6.2.1], it will not be possible to accept tests performed by laboratories which are not approved and certified by the Society in accordance with the Tasneef "Rules for recognition of test laboratories" or considered acceptable in accordance with criteria similar to those indicated in [6.3.1].

6.2.4 Reporting

In the cases indicated in [6.2.2] the testing reports may be prepared either directly by the Tasneef Surveyor or by the laboratory and endorsed by the Tasneef Surveyor who attended the tests.

In the cases indicated in [6.2.3] the testing reports are to be prepared by the laboratory in accordance with the criteria laid down in [6.3.2] and are to be endorsed by the Tasneef Surveyor who attended the tests.

6.3 Criteria for the acceptance of test laboratories that perform tests not attended by Tasneef Surveyors

6.3.1 Characteristics of laboratories

Testing laboratories complying with any of the following conditions may be accepted by Tasneef whenever the tests or types of tests carried out may be accepted without the presence of Tasneef Surveyors:

a) they are recognised by Tasneef in accordance with the “Rules for recognition of test laboratories”;

b) they are accredited and/or recognised by:
   - an Organisation which is a full term member of ILAC (International Laboratory Accreditation Co-operation);
   - USCG (United States Coast Guard);
   - an IACS (International Association of Classification Societies) member;

- a State Administration which is a signatory of IMO (International Maritime Organisation) conventions.

c) they have implemented a certified Quality Assurance System in accordance with ISO 9000 Standards that covers the types of tests necessary for the certification of the product.

Laboratories not complying with any of the above conditions will be evaluated by Tasneef on a case-by-case basis, provided the documentation submitted and the results of a possible audit demonstrate that their level of experience and reliability is not less than that of the laboratories accepted on the basis of [3.1.1]. This evaluation may also be based on records of historical performance.

Laboratories which perform unattended tests on equipment subject to the European MED Directive are to comply with the requirements of the Tasneef "Rules for the certification of marine equipment in accordance with European Directive 2014/90/EU".

6.3.2 Acceptance of testing reports

Whenever provided for and allowed by the applicable Rules, testing reports issued by laboratories complying with the conditions laid down in [6.3.1] may be accepted subject to the following.

a) The testing reports are to be complete and clear in full compliance with the applicable Standards and are to be signed by a technician in charge of the testing laboratory;

b) In general, the testing reports are to be compiled and to include the information in accordance with the criteria stated in ISO Standard 17025, or in other equivalent Standards;

c) The testing reports are to include a copy of the Accreditation Certificate of the Laboratory or other documentation clearly showing the Accreditation Body that issued the accreditation as well as its expiry date.

In general, testing reports are not acceptable if they are issued by Laboratories not satisfying the conditions laid down in [6.3.1] or satisfying them only for types of testing other than that performed and reported in the specific case or by laboratories with expired accreditation.

6.3.3 Acceptance procedure

Unless the laboratory is acceptable to the Society as per [6.3.1.], the acceptance of its testing reports will be reconsidered by the Society on a case-by-case basis.

In such cases, one testing report issued by a laboratory does not constitute a precedent for the acceptance of another testing report issued by the same laboratory.

6.4 Derogation

6.4.1 The Society may establish different criteria for the acceptance of testing laboratories with respect to the requirements indicated above for those categories of products which, due to their peculiarity, cannot be dealt with as prescribed in this paragraph.

7 Identification marking and testing documentation

7.1 General

7.1.1 The following provisions supplement the requirements on material and product marking indicated in Part D, Ch 1, Sec 1, [4.1].

7.2 Products individually tested

7.2.1 Products which have undergone testing are to be appropriately marked by the Manufacturer in at least one easily accessible location; the marking is to contain all necessary indications, as required depending on the product categories. Lengthy duration of marking is to be ensured.

The marks are to correspond to the contents of the testing documentation.

7.2.2 The marks are to be stamped, as a rule, by means of brands, except for products made of material which could be impaired by such a procedure or having too small a thickness; in such cases, the alternative systems used are to be equally reliable, in the opinion of Tasneef Surveyors.

Where possible, the marks are to be made conspicuous by circling them with paint so as to facilitate their location.

7.2.3 In general, products are to be marked individually.

Exception may be made for small pieces contained in effective containers, as well as for bars and angles of modest weight, adequately bound in bundles, in which cases the marks are transferred to the container or bundle by procedures to the satisfaction of Tasneef Surveyors.

7.2.4 Products for which checks and tests are required and which are satisfactorily tested in compliance with Tasneef Rules are to be marked in the presence of Tasneef Surveyors with the official Tasneef brand, as indicated in Fig 1.

Figure 1

7.3 Products subjected to an alternative testing scheme

7.3.1 In the case of admission to alternative testing systems, the marking with the Society's stamp may be delegated to the Manufacturer, who will be supplied, for this purpose, with a special brand. In such cases, marking with the above-mentioned stamp is also regarded as an implicit assurance on the part of the Manufacturer that the products stamped are those which satisfactorily passed the required tests.

7.3.2 Fig 2 shows the mark.

Figure 2

7.4 Additional marking

7.4.1 For products tested by lot, the test samples and the parts from which they originate are to be marked with the personal brand of the Tasneef Surveyor responsible for the sampling.

7.4.2 Pieces which are hydro-tested are also to be marked as above, generally adding the test pressure preceded by the letters:

TP

7.4.3 Exception is made, at the discretion of Tasneef Surveyors, for pipes and for parts of minor importance.

7.5 Products with testing not completed

7.5.1 Whenever a product is despatched for delivery with- out undergoing all the tests required, the official Tasneef round stamp will be replaced by the square stamp by means of special Tasneef brands (Fig 3).

7.5.2 The testing documents are to contain clear indications as to why some of the tests have not been performed; all outstanding tests are also to be clearly specified.

Figure 3

7.6 Particular cases

7.6.1 The diamond stamp indicated in Fig 4 is substituted for the round stamp (by special Tasneef brands) in the following cases:

- Products for which Tasneef has agreed to dispense with some of the required tests.
- Products intended for yachts not classified by the Society or for shore installations, which the Society has been requested to test according to specifications other than those contained in the Society Rules.

- Products tested (either new or after repairs) with the right of reconsideration in service in that they are accepted on a trial basis and/or under special conditions (e.g. closer surveys, special checks in service, reduction in accepted performance, etc.). In these cases, in order to draw the attention of the Surveyors of the Society and interested parties, the letter R will be added to the stamp (Figure 5). Where the round stamp is previously stamped, it is to be invalidated as indicated in [1.7]. The notation "experimental" and/or the conditions connected with this marking are to be clearly indicated in the testing documents, which are to be made available to the Surveyors of the Soceity at the first survey at the beginning of the product's service and at any subsequent surveys.

7.7 Invalidation of marks

7.7.1 When a product already marked with one of the stamps above is found, during or subsequent to the testing, to be not in compliance with the requirements and is therefore rejected, the Tasneef stamps and the Surveyor's initials are to be invalidated by punching indicated in Fig 6.

The Surveyors of the Society may demand to check that the stamps have been invalidated as indicated above.

Figure 4

Figure 5

7.7.2 In the case of marking as specified in [1.6], when the trial period is finished and no other restrictive condition is to be applied, the diamond stamp is to be invalidated as indicated above (Fig 6) and the product is to be marked with the round stamp (Figure 1) and, whenever possible, with the date of marking. This change of marks is to be clearly indicated in the relevant survey report.

7.7.3 Any repairs after the product is tested, either before or after the beginning of service, are subject to the prior consent of the Society; failing this the validity of the original testing will automatically expire and the original testing marks are to be invalidated by the interested parties.

7.8 Testing documentation

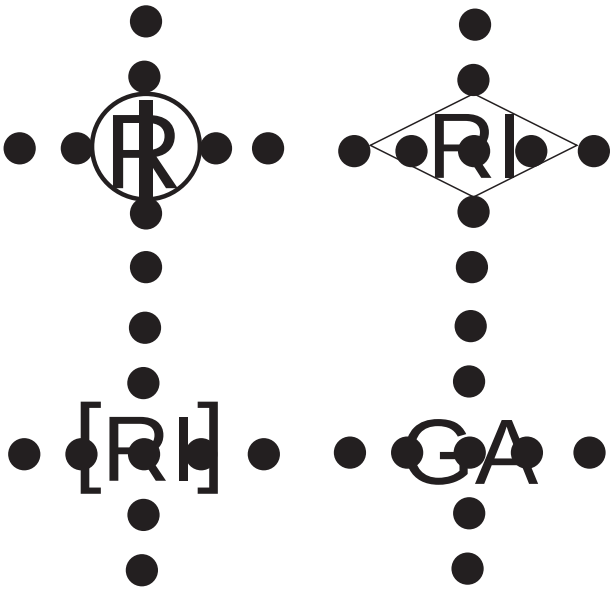
7.8.1 The following provisions supplement the requirements on material and product markings indicated in Part D, Chapter 1, Section 1 [4.2], of the Rules and in Chapter 2 of these Rules.

7.8.2 Application for testing

For the purpose of testing, the Manufacturer is to submit a written application to the Society containing at least the following information:

- the kind and essential specification properties of the product and, in the case of materials, indication of the type, dimensions, weight and supply conditions;
- the name of the purchaser and the order number;
- the hull number or destination.

Figure 6



7.8.3 Testing report

When the testing is completed, the Manufacturer is to issue the testing report enclosing statement of the following:

a) the requirements for and the results of the tests;

b) the identification and testing marks stamped on the products; additionally, in the case of testing of materials:
   - the specifying designations of the heat and relevant chemical analysis;
   - the supply condition and the specification of heat treatment, as required;
   - the working and manufacturing procedure (for rolled products intended for hull, boilers and pressure vessels only).

For complicated or assembled products admitted to the alternative testing scheme, as an alternative to the above, the Manufacturer may issue a written statement that all the inspections and required tests have been performed as required by the Rules, provided it is possible to trace the associated documentation at the request of the Tasneef Surveyor. This documentation is to be kept for a period of at least 10 years after the date of the certificate.

This testing report will be attached to the testing certificate issued by the Society, or, alternatively, at the Soceity's discretion, directly confirmed by endorsement with the Tasneef stamp and the signature of the Surveyor of the Soceity in charge.

For materials manufactured in large quantities and tested by heats or by lot, the Manufacturer is to further state for the individual supplies that the material has been produced according to the Rules.

Where, following a special procedure, testing is entirely delegated to the Manufacturer, the latter is to issue its own certificate, containing all the information required in [2.2] and [2.3.1].

7.8.4 Certificates issued by Manufacturers

Where it is anticipated that the materials or products will be received with only the certificate of conformity issued by the Manufacturer, this document is to contain at least the following information:

- the kind and essential specification properties of the product, the weight and, in the case of materials, the type (working and manufacturing procedure), the nominal chemical analysis and mechanical properties or the reference standard, the dimensions and the supply condition;
- the identification marks on the products.

7.8.5 Delayed testing

Where, in special cases, at the request of the interested parties, testing is allowed to be performed after delivery, at the user’s works, such procedure is subject to the following conditions:

- the Manufacturer is to be recognised;
- the product is to be accompanied by a statement from the Manufacturer containing the information required in [2.4]and, in addition for materials, the ladle analysis.

In any event, the Surveyors of the Society have the right either to reject products with documentation missing or of dubious origin, or to demand further checks, such as the determination of the chemical composition on the product.

8 Requirements for inspection and testing of products at workshops

8.1 General

8.1.1 Purpose

The following tables list the equipment and materials which are likely to be used for the construction and outfit- ting of a yacht together with the minimum certification and testing required to be performed at the workshop before the delivery to the building shipyard.

8.1.2 Applicability

These tables are not to be considered as an alternative to or a substitute for the applicable Rule requirements. They are intended to summarise a large number of requirements located in various parts of different documents. In the event of discrepancy between the content of the tables and the applicable Rules and Standards, the latter are to be considered valid.

Products which are not considered in the following tables are to be dealt with as indicated in the applicable Rules and Standards and/or using the criteria stipulated in the tables for similar equipment, as agreed with the Society.

8.2 Content of the tables

8.2.1 Columns

The following tables have 13 columns, as follows:

- COLUMN 1:

  supplies an identification number for the equipment or material considered (referenced in Tasneef Rules for Testing NCC23/E)
- COLUMN 2:

  supplies a description of the equipment or material considered
- COLUMN 3:

  indicates whether the certification is required for the classification of the yachts by Tasneef Rules or by statutory regulations or by other Organisations, such as OIL
- COLUMN 4:

  indicates which type of certificate is required; for the meaning of the symbols used see [2]. Column 4 may be split in 2 or 4 sub column according to the gross tonnage and the class notation
- COLUMN 5:

  indicates whether the Rules require the submittal of technical documentation and design approval (see Chapter 2, [2.1] and [2.3]); whether type approval certification is required as a preliminary step towards the individual certification is also indicated
- COLUMN 6:

  indicates whether the Rules require the approval of the manufacturer and of the Manufacturing process (see [2])
- COLUMN 7:

  indicates whether the Rules require that all or part of material testing is attended by a Tasneef Surveyor (see [2]). When Workshop Certificates are normally accepted, the symbol XM is indicated in the column
- COLUMN 8:

  indicates whether the Rules require that all or part of the materials or welds are subjected to NDT in the presence of the Tasneef Surveyor's or under his control. When Workshop Certificates are normally accepted, the symbol **XM** is indicated in the column
- COLUMN 9:

  indicates whether the Rules require the Tasneef Surveyor's attendance at the workshop during certain steps of the manufacturing process (see [2])
- COLUMN 10:

  indicates whether the Rules require that a Tasneef Surveyor performs a final examination of the product (See para Chapter 2, [2.7]) or the verification of the conformity with the approved type and checking of compliance with approved drawings as applicable. The verification of conformity may also be performed at the shipyard in connection with the installation on board of the equipment (See [2]). When Workshop Certificates are normally accepted, the symbol XM is indicated in the column
- COLUMN 11:

indicates whether the Rules require that final tests are carried out in the presence of a Tasneef Surveyor. In the case of hydrostatic testing carried out in batches, the test is performed and certified by the Manufacturer and checks may be carried out by the Surveyor. When Workshop Certificates are normally accepted, the symbol **XM** is indicated in the column

- COLUMN 12:

  indicates whether the completed equipment is to be subjected to a functioning and/or performance test in the presence of the Tasneef Surveyor (See [2]) in workshop or where possible on board. When Workshop Certificates are normally accepted, the symbol XM is indicated in the column

8.3 Symbols

8.3.1 The following symbols are used in Column 3:

- **C**

  to indicate that the certification is required by Tasneef Rules in connection with the yacht classification

- S

  to indicate that the certification is required following statutory requirements

- B

  to indicate that the certification is required both for Tasneef classification of the yacht and to comply with statutory requirements.

- O

  to indicate that the certification is required to comply with the requirements of other Organisations, for instance OIL.

8.3.2 *(1/1/2025)*

The following symbols are used in Column 4:

- CT

  individual inspection scheme (see [3])

- CA

  alternative inspection scheme (see [4])

- TA

  Tasneef type approval (see [5]). Where the Type Approval Certificate is supplemented by a Production Control Certificate, no additional certificate is required. Where the Type Approval Certificate is supplemented by a Production Control Certificate, no additional certificate is required.

  Where the Type Approval Certificate is required as a preliminary step of the individual certification, the symbol TA is indicated in column 5 in addition to the other requirements for the individual certification.

  TA issued by other IACS Societies may be taken into consideration as alternative to Tasneef Type Approval

- MED

  MED type approval (see [5])

- MA

  (Manufacturer’s affidavit). In general, the MA requires the examination of the available documentation (internal reports, certificates) by the Tasneef Surveyor and is in general carried out directly at the shipyard. Where the rules ask for product conformity to national or international standards, a Manufacturer's declaration of conformity of the product to those standards is to be sent.

8.4 Alternatives

8.4.1 In general, whenever a TA is required for a product, a CT may also be acceptable. In such cases, the tests to be carried out are to be agreed on a case-by-case basis with the Society taking into account the tests required for type approval.

9 Certification and testing

9.1 General

9.1.1 In the tables from 1 to 17 in Annex 1 are reported the required certification for the all the items fitted on board, when required by the rules, according to the service notation requested. The tables relevant to items not reported in class rules (e.g. statutory matters such as life saving appliances, radio etc) are reported for information only.

Annex 1

Table 1: Hull Structure and Equipment

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE		DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC-TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA-TION	FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
			> 500 GT	< 500 GT								
No.	**HULL STRUCTURE Tab A**											
2	Aluminium alloy plates, profiles and structural pipes	C	CT or CA	CT or CA		X (1)	X	X		X	X	
3	Bimetallic joints for connection of aluminium structures to steel structures	C	CT or CA	CT or CA		X (1)	X	X		X	X	
4	Cast or forged steel for engine foundation plates	C	CT or CA	CT or CA			X	X		X		
5	Cast or forged steel /alluminium /composite for stem, sternpost, rudder horn, rudder frames, shaft brackets, hawsepipes, stern tube	C	CT or CA	CT or CA	X	X	X	X		X		
6	Propeller nozzles	C	CT	CT	X		X	X	X	X		
7	Steel/alluminium /composite plates/panels, profiles and structural pipes	C	CT or CA	CT or CA		X (1)	X	X		X	X	
8	Welded profiles	C	CT or CA	CT or CA		X (1)		X		X	X	
9	GRP structures components (resins, reinforcements, sandwich materials …)	C	TA	TA			X					
10	Wooden structure (plywood …)	C	TA	TA			X					
(1) Not required for limited supplies with CT when additional tests are carried out												
	Hull Equipment and Fittings Tab. B											
1	Anchor windlasses	C	CT or CA	MA	X		XM	X (4)		X	X (1)	X (1)
2	Anchors	C	CT or CA	CT or CA	X	X	X	X		X	X (2) (7)	
3	Ball type air pipe closing devices	B	TA	TA						X		
4	Chain stoppers	C	CT or CA	MA	X (12)		XM			X	X (13)	X
5	Chain cables for anchors	C	CT or CA(***)	CT or CA (***)		X				X	X (3)	
6	Electric motors and electric apparatus for products 1, 8, 23, 26	SEE TABLE N										
7	Fittings for chain cables:links, shackles, end links, swivels,pendants	C	CT or CA	MA		X	X	X (4)		X	X (4)	

8	Shell and bottom doors	C	CT	CT	X		X	X	X	X (6)		
9	High/very high holding power anchors	C	CT or CA	CT or CA	TA	X	X	X		X	X (2) (7)	
10	Hull fittings for mooring or towing, without rotating components (bollards, bitts, chocks)	C	CT or CA	MA	X (12)		XM			X		
10A	Hull fittings for mooring or towing, with rotating components (fairleads, rollers)	C	CT or CA	MA	X (12)		XM			X	X (8)(13)	X
11	Hydraulic plants for products anchor windlass and WT doors	SEE TABLE L										
12	Scuppers	C	CT or CA	CT or CA	X					X	X	
13	Securing devices for hatch covers and shell doors (see item 8)	C	CT or CA	TA	X		X	X		X		
14	Glazings an relevant deadlight fitted on the hull or superstructure contributing to buoyancy with frame	C	TA	TA	X		X (14)			X	X (6)	
15	Glass for glazing	C	CT or CA	CT or CA			X (14)			X		
15A	Structural adhesive	C	TA	TA								
16	Steel bars for chains	C	CT or CA(***)	CT or CA (***)		X	X					
18	Steel, raw or synthetic fibre ropes for standing running rig- ging, mooring warping, towing	C	CT or CA (*)	MA		X (11)				X	X (9)	
19	Stem, sternpost, rudder horn, rudder frames, shoepieces, shaft brackets, hawsepipes, etc.	C	CT	CT	X		X	X	X	X	X	
21 tab.I	Sterntubes	C	CT or CA	CT or CA	X		X	X		X	XM (10)	
see tab C	Rudder trunk	C	CT	CT	X		X	X		X		
20	Tow hooks (if not intended for emergency towing)	C	CT or CA	CT or CA	X		XM			X	X (7)	
21	Towing winches (if not intended for emergency towing)	C	CT or CA	CT or CA	X		XM	X (4)		X	X	X
22	Valves for sea inlet and overboard discharge only DN>=80	B	CT or CA	CT or CA			X			X	X (10)	
22 bis	Valves for sea inlet and overboard discharge only DN<80	B	MA	MA			XM			X		
22 ter	Through hull fitting (any DN) for composite vessel	B	TA	TA	X		X				X (15)	
22A	Watertight cable transits (*)	B	TA	MA								
23	Watertight doors Structure	B	TA	TA								
25	Weathertight doors	B	MA	MA			XM			X	X	
25 new	Underwater lights and similar items	C	TA	TA	X		X				X	X
26 new	Glazed bulwarks	C	TA	TA	X		X (16)			X (16)		

(1) With verification of the disassembled parts after the test, as applicable

(2) Drop and hammering test on cast anchors may be omitted subject to preliminary agreement and additional tests.

(3) Proof load and breaking strength test per lots

(4) If and when requested by Tasneef Surveyor

(5) To be in accordance with a recognised Standard, otherwise design is to be approved

(6) Hose tests

(7) Proof load test

(8) Hydrostatic test on sample products randomly selected plus other particular tests as required by the Rules

(9) Breaking strength test

(10) Hydrostatic test

(11) when required by the Rules

(12) Approval of drawings is not required if the equipment is made in accordance with a recognised industry standard (e.g. ISO)

(13) Proof load test is not required if the equipment is made in accordance with a recognised industry standard

(14) Hydrostatic or punch test for glass for glazings fitted into the hull or superstructure contributing to buoyancy, XM for other cases, X for frame materials

(*) MA in case of yachts of less than 500GT

(**) TA in case of yachts of less than 500GT

(***) for SL3, Q3 and Q2 when required in part D otherwise MA

(15) Test in accordance with ISO 9093

(16) When required in accordance to Pt B, Ch 1, Sec 1, [5.12]

Table 2: Rudder and steering

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Rudder and Steering gear Tab C		cross MACH any length any GT	new cross any length any GT	ball MACH applic only for < 500GT	ball MACH < 24m								
1	Actuators	C	CT or CA	TA	TA	MA	X		X	X		X	X (1)	
1	Electric motors and apparatus more than 100kW	C	CT or CA	MA (5)	MA		TA (3)					X	X (4)	X
2	Electric motors and apparatus less than 100kW	C	MA (5)	MA (5)	MA (6)							XM	XM	XM
3	Hydraulic plants	C	CT or CA	MA					XM			X	X (1)	X
5	Pintles	C	CT	MA			X		X	X		X		
6	Hydraulic pumps	C	CT or CA	MA			TA		X	X		X	X (1)	X
7	Rudder tiliers, quadrants , rams and piston rods; cylindrical shells of hydraulic cylinder;rotors and rotor housings for rotary vane steering gear	C	CT or CA	CT or CA	MA	MA	X		X	X		X	X (1)	
8	Rudders (complete)	C	CT	CT	MA		X		X	X	X	X	X (1)	
8A	Rudder components:Blades,Stocks, Couplings,Bolts and nuts	C	CT	CT	MA		X		X	X		X		
8B	Rudder components: Hydraulic nuts intended for mounting of cone couplings, Stock liners,Flap pivots, hinge rings and bushes	C	CT	MA			X		XM			X		
9	Steering gear (complete)	C	CT or CA	CT or CA	MA		X				X	X	X	

(1) Hydrostatic test of components subject to pressure

(2) Manufacturer's type test reports are to be submitted

(3) Type approval or type test as required by the Rules

(4) In case of motors cooled with water jacket, hydrostatic pressure test to be carried as required by the Rules.

(5) Manufacturer's type test in accordance with Tasneef Rules are to be submitted

(6) Declaration of conformity to IEC 60034 to be submitted

Table 3: Main and Aux Diesel Engines

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Main and Aux Diesel Engines Tab D		**cross MACH any length any GT**	**new cross any length any GT**	**ball MACH applic only for < 500GT**	**ball MACH < 24m**								
1	Welded bedplate	C	CT or CA	MA			X	X (5)	XM (1) (2)	XM (3) (4)	X (6)	X		
2	Cast steel bearing transverse girders	C	CT or CA	MA					XM (1) (2)	XM (3) (4)		X		
3	Welded frame box	C	CT or CA	MA				X (5)	XM (1) (2)	XM (3) (4)	X (6)	X		
4	Gray cast iron cylinder block for engines having a power per cylinder greater than 400 kW/cyl	C	MA									XM	XM (16)(7)	
5	Spheroidal graphite cast iron cylinder block for engines having a power per cylinder greater than 400 kW/cyl	C	MA									XM	XM (16)(7)	
6	Welded cylinder frames for crosshead engines	C	CT or CA	MA				X (5)	XM (1) (2)	XM (3) (4)		X (6)	X	
7	Gray cast iron engine block for engines having a power per cylinder greater than 400 kW/cyl	C	MA									XM	XM (16)(7)	
8	Spheroidal graphite cast iron engine block for engines having a power per cylinder greater than 400 kW/cyl	C	MA					XM (2)				XM	XM (16)(7)	
9	Cylinder liner for engines having cylinder bore greater than 300 mm	C	MA					XM (1) (2)				XM	XM (16)(7)	
10	Gray cast iron cylinder head for engines having cylinder bore greater than 300 mm	C	MA										XM (16)(7)	
11	Spheroidal graphite cast iron cylinder head for engines having cylinder bore greater than 300 mm	C	MA										XM (16)(7)	

12	Cast steel cylinder head for engines having cylinder bore greater than 300 mm	C	CT or CA	MA				X	XM (1) (2)	XM (3) (4)		X	XM (16)(7)	
13	Forged cylinder head for engines having cylinder bore greater than 300 mm	C	CT or CA	MA				X	XM (1) (2)	XM (3) (4)		X	XM (16)(7)	
14	Cast steel piston crown for engines having cylinder bore greater than 400 mm	C	CT or CA	MA				X	XM (1) (2)	XM (3) (4)		X		
15	Forged piston crown for engines having cylinder bore greater than 400 mm	C	CT or CA	MA				X	XM (1) (2)	XM (3) (4)		X		
20	Exhaust gas valve cage for crosshead engines	C	MA										XM (16)(7)	
21	Piston rod for crosshead engines having cylinder bore greater than 400 mm	C	CT or CA	MA					XM (1) (2)	XM (3) (4)		X (11)		
23	Connecting rod with cap	C	CT or CA	MA					XM (1) (2)	XM (3) (4)	XM	X (17)		
24	Coupling bolts for crankshaft	C	CT or CA	MA					XM (1) (2)	XM (3) (4)	XM	X (18)		
25	Bolts and studs for main bearings for engines having cylinder bore greater than 300 mm	C	MA						XM (1) (2)	XM (3) (4)				
26	Bolts and studs for cylinder heads for engines hav- ing cylinder bore greater than 300 mm	C	MA						XM (1) (2)	XM (3) (4)				
27	Bolts and studs for connecting rods for engines hav- ing cylinder bore greater than 300 mm	C	MA						XM (1) (2)	XM (3) (4)	XM (12)			
28	Tie rod for crosshead engines	C	CT or CA	MA					XM (1) (2)	XM (3) (4)	XM (12)	X (11)		
29	High pressure fuel injection pump body for engines having cylinder bore greater than 300 mm	C	MA						XM (1) (2)				XM (16)(7)	
30	High pressure fuel injection pump body for engines having cylinder bore not greater than 300 mm	C	MA						XM (1) (2)				XM (15)(7)	
31	High pressure fuel injection valves (only for those not auto-fretted) for engines having cylinder bore greater than 300 mm	C	MA										XM (16)(7)	

32	High pressure fuel injection valves (only for those not auto-fretted) for engines having cylinder bore not greater than 300 mm	C	MA										XM (15)(7)	
33	High pressure fuel injection pipes including com- mon fuel rail for engines having cylinder bore great- er than 300 mm	C	MA						XM (1) (2)				XM (14)(16)(7)	
34	High pressure fuel injection pipes including com- mon fuel rail for engines having cylinder bore not greater than 300 mm	C	MA						XM (1) (2)				XM (14)(15)(7)	
35	High pressure common servo oil system for engines having cylinder bore greater than 300 mm	C	MA						XM (1) (2)				XM (16)(7)	
36	High pressure common servo oil system for engines having cylinder bore not greater than 300 mm	C	MA						XM (1) (2)				XM (15)(7)	
37	Cooler, both sides (13), for engines having cylinder bore greater than 300 mm	C	MA						XM (1) (2)				XM (16)(7)	
38	Accumulator (only for accumulators with capacity greater than 0,5 l)	C	MA						XM (1) (2)				XM (16)(7)	
39	Piping, pumps, actuators, etc. for hydraulic drive of valves for engines having a power per cylinder greater than 800 kW/cyl	C	MA						XM (1) (2)				XM (16)	
40	Engine driven pumps (oil, water, fuel, bilge), -other than injection pumps and pumps for hydraulic drive -, for engines having a power per cylinder greater than 800 kW/cyl	C	MA										XM (16)(7)	
41	Bearings for main and crankpin for engines having a power per cylinder greater than 800 kW/cyl	C	MA						XM (1) (2)	XM (4)(15)	XM (8)			
42	Diesel engines (complete) for non-essential service and diesel engines for essential auxiliary service of less than 110 kW	C	MA											

43	Diesel engines (complete) intended for main propulsion, or Diesel engines (complete) developping a power of 110 kW and over intended for: a) driving electrical generator; b) other auxiliary services essential for safety and navigation;	**C**	**CT or CA**	**TA**	**MA**	**MA**							**X**	**X**
44	Diesel engine control panels	**see tab E**												
45	Elastic couplings for electric generator groups	**C**	**CT or CA**	**MA**					**XM**				**X**	
46	Electric power generating sets	**see tab N**												
47	Injection plants for diesel engines intended for propulsion or power generation and other essential auxiliary services of 110 KW or greater	**see tab E**												
49	Chocking resins (pourable compounds for foundation chocking)	**C**	**TA**	**MA**										

(1) Chemical composition
(2) Mechanical properties
(3) Crack detection by MPI or liquid penetrant test
(4) Ultrasonic testing
(5) Approval of WPS
(6) Fit up + post welding
(7) Hydrostatic pressure test as required by the applicable rules
(8) Dimensional inspection, including surface condition
(9) Random check of fillets and oil bores
(10) Random check of fillets and shrink fittings
(11) Random check
(12) Manufacturer Test Report of thread making
(13) Charge air coolers need only be tested on the water side
(14) Required for those injection pipes that are not autofretted
(15) Review of Manufacturer Test Report
(16) Review of Manufacturer Work Certificate
(17) Random check of all surfaces, in particular those shot peened
(18) Random check of interfce fit

	Auxiliary component and accessories for Engines Tab.E													
1	Air, water and oil coolers	FOR PRESSURE PARTS SEE TABLE J												
2	Clutches	SEE TABLE H												
3	Control, monitoring and alarm systems	SEE TABLE Q												
4	Cooling water, lubricating oil, fuel oil injection and fuel oil transfer pumps	C	CT or CA	MA									X (1)	X
5	Ejectors for bilge in machinery spaces	C	CT or CA	MA									X (1)	
7	Electric panels and apparatus	SEE TABLE N												
8	Fuel oil and lubricating oil non-structural tanks	C	CT or CA	MA					XM			X	X (1)	
9	Fuel oil and lubricating oil purifiers	C	CT or CA	MA								X	X (1)	X
10	Injectors, buster pumps and injection pipes	C	CT or CA	MA					XM			X	X (1)	
10A	Oil mist detector	C	TA									X		X
11	Piping systems	SEE TABLE K												
12	Pressure filters	FOR PRESSURE PARTS SEE TABLE J												
15	Crankcase explosion relief valves for diesel engines (3)	C	TA											
16	Scavenge air main	FOR PRESSURE PARTS SEE TABLE J												
17	Scavenging pumps	C	CT or CA	MA								X	X (1)	X
18	Starting air compressors	C	CT or CA	MA								X	X (1)	X
19	Starting motors - electrical	SEE TABLE N												
20	Starting motors - hydraulic or pneumatic	C	CT or CA	TA	MA	MA						X	X (1)	
21	Turbochargers (Category A and B)	C	MA (2)											
22	Turbochargers (Category C)	C	CT or CA	TA	MA	MA			X	X		X	X (1) (4)	X
23	Electronic speed governors and their actuators	C	TA											
24	Explosion relief devices (ERD) for combustion air inlet and exhaust gas manifolds of i.c.engines using gas as fuel (4)	C	TA											

(1) Hydrostatic test

(2) For Category B the manufacturer is to adhere to a quality system designed to ensure that the designer's specifications are met, and that manufacturing is in accordance with the approved drawings

(3) Overspeed and balancing tests on completed rotor

(4) When required by the Rules

Table 4: Turbines

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Steam Turbines Tab F		cross MACH any length any GT	new cross any length any GT	ball MACH applic only for < 500GT	ball MACH < 24m			cross MACH					
1	Assembled rotor	C	CT or CA	MA								X	X (1)	
2	Blades	C	CT or CA	MA					X (3) (6)	X (2) (3)		X (3)		
3	Casings	C	CT or CA	MA					XM	X (4)			X (5)	
4	Circulation pumps	C	CT or CA	MA					XM					
5	Clutches	SEE TABLE I												
6	Control, monitoring and alarm systems	SEE TABLE Q												
7	Foundation bolts	C	CT or CA	MA					XM (8)			X		
8	Couplings	SEE TABLE H, I												
9	Disks	C	CT or CA	MA					X	X (2)		X (3)		
10	Dump condenser	SEE TABLE J												
11	Ejectors	C	MA											
12	Electrical apparatus	SEE TABLE N												
13	Extraction pumps	C	CT or CA	MA					XM					X
14	Main condenser	SEE TABLE J												
15	Piping systems	SEE TABLE K												
16	Safety valves	SEE TABLE J												
17	Sectors, nozzles and diaphragms	C	CT or CA	MA					XM	X (2)		X (3)		

18	Shafts	C	CT or CA	MA					X	X		X		
19	Turbine internal piping	C	CT or CA	MA					XM			X	X (5)	
20	Turbines (complete)	C	CT or CA	TA	MA	MA	X				X	X	X (5)	
21	Welded structures	C	CT or CA	MA				X (7)	XM	X	X	X		

(1) Overspeed, balancing and thermal stability tests for turbines with service temperature over 400 °C (for turbines with service temperature over 400 °C)

(2) Ultrasonic tests or X-ray examinations and magnetic particle or liquid penetrant tests on samples

(3) On samples

(4) As agreed with Tasneef Surveyor

(5) Hydrostatic test

(6) May be XM in case of auxiliary turbines with steam inlet temperature of up to 250°C.

(7) Welding procedures

(8) X Bolt diameter greather than 40 mm

	Gas Turbines Tab G													
1	Assembled rotor	C	CT or CA	MA								X	X (1)	
2	Blades	C	CT or CA	MA					X (3)	X (2) (3)		X (3)		
3	Casings	C	CT or CA	MA					XM	X (5)			X (6)	
4	Clutches	SEE TABLE I												
5	Combustion chamber	C	CT or CA	MA					XM	X (5)			X (6)	
6	Control, monitoring and alarm systems	SEE TABLE Q												
7	Foundation bolts	C	CT or CA	MA					XM (4)			X		
8	Couplings	SEE TABLE H, I												
9	Disks	C	CT or CA	MA					X	X (2)		X (3)		
10	Electrical panels and apparatus	SEE TABLE N												
11	Piping systems	SEE TABLE K												
13	Sectors, nozzles and diaphragms	C	CT or CA	MA					XM	X (2)		X (3)		
14	Shafts	C	CT or CA	MA					X	X		X		
15	Starting motors – electrical	SEE TABLE N												
16	Starting motors – hydraulic or pneumatic	SEE TABLE E												
17	Turbine Internal piping	C	CT or CA	MA					XM			X	X (6)	
18	Turbines (completed)	C	CT or CA	TA	MA	MA	X				X	X	X (6)	
19	Welded structures	C	CT or CA	MA				X (7)	XM	X	X	X		

(1) Overspeed and balancing tests

(2) Ultrasonic tests or X-ray examinations and magnetic particle or liquid penetrant tests on samples

(3) On samples

(4) X for bolts diameters greater than 40 mm

(5) Magnetic particle or liquid penetrant tests

(6) Hydrostatic tests. Alternative means for testing may be agreed with Tasneef Surveyors

(7) Welding procedures

Table 5: Reduction Reverse Gears

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Reduction and Reverse Gears Tab.H		cross MACH any length any GT	new cross any length any GT	ball MACH applic only for < 500GT	ball MACH < 24m								
1	Casings of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	MA			X (1)	X (2)	X	X (3)		X		
2	Clutches	C	CT or CA	MA			X		X			X	X (4)	
3	Control, monitoring and alarm systems	SEE TABLE Q												
4	Couplings of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	MA			X		X	X (5)		X		
5	Pinions and wheels of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	MA			X	X	X	X		X	X (6)	
6	Plates and profiles for steel welded cases of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	MA				X	X (9)					
7	Reduction and/or reverse gears for propulsion transmitting 220 kW and above power and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	TA	MA		X (7)						X	X (8)
8	Reduction and/or reverse gears others than those indicated in item above	C	MA											

9	Shafts of reduction and reverse gears for propulsion transmitting 220 kW power and above and for essential auxiliaries transmitting 110 kW power and above	C	CT or CA	MA			X	X	X	X (5)		X		
10	Valves, pipes, pump coolers	FOR PRESSURE PARTS SEE TABLES J AND K												

(1) Only for welded casings

(2) Welding procedures

(3) Only for welded joints

(4) Hydrostatic tests for hydraulic and pneumatic clutches

(5) Not required for shaft of less than 250 mm diameter

(6) Verification of teeth accuracy, balancing, meshing test

(7) It may be TA at Manufacturer's request

(8) Tooth meshing test is to be performed at a load sufficient to ensure tooth contact

(9) Only for main structural plates and profiles and if intended for propulsion

Table 6: Propellers,Shafting,Thrusters

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Propeller Shafting and Thruster Tab.I		cross MACH any length any GT	new cross any length any GT	ball MACH applic only for < 500GT	ball MACH < 24m			cross MACH					
1	Bearing sleeves and bushing (other than sterntube bushes)	C	CT or CA	MA					XM (6)			X		
2	Cardan shafts (flanges, crosses, shafts, yokes)	C	CT or CA	MA			X	X (1)	X	XM (5)		X		
3	Clutches	SEE TABLE H												
4	Control, monitoring and alarm systems	SEE TABLE Q												
5	Controllable pitch propeller and built-up propeller blades	C	CT or CA	CT or CA	MA		X	X	X	X		X	X (2)	
6	Controllable pitch propeller and built-up propeller connecting bolts/studs	C	CT or CA	CT or CA	MA		X		X			X		
7	Controllable pitch propeller and built-up propeller hubs	C	CT or CA	CT or CA	MA		X (7)	X	X	X		X		
8	Controllable pitch propeller hydraulic control system	SEE TABLE L												
9	Controllable pitch propeller mechanism (mechanical parts)	C	CT or CA	CT or CA	MA				XM			X		X
10	Coupling bolts or studs for couplings	C	CT or CA	MA			X		XM			XM		
11	Coupling keys	C	CT or CA	MA			X		XM			X		
12	Elastic coupling	C	CT or CA	CT or CA	MA		X		XM			X		
13	Forgings for tailshafts	C	CT or CA	MA	MA			X	X	X (4)				
14	Hydraulic couplings	C	CT or CA	CT or CA	MA		X		X			X	XM (3)	
15	Intermediate shafts	C	CT or CA	CT or CA	MA		X		X	XM (5)		X		
16	Propeller nuts	C	CT or CA	MA					XM					
17	Propellers (solid)	C	CT or CA	CT or CA	MA	MA	X	X	X	X		X	X (2)	
19	Sterntube bushes, (oil lubricated, water lubricated, grease lubricated)	C	CT or CA	MA			X		XM (6)	X		X		

20	Sterntube sealing	C	CT or CA	MA			X					X		
21	Sterntubes	SEE TABLE B												
22	Propeller shaft liners	C	CT or CA	MA			X		XM			X	XM (3)	
23	Propeller shafts	C	CT or CA	CT or CA	MA	MA	X		X	XM (5)		X		
24	Teeth coupling	C	CT or CA	MA			X		XM	X		X		
25	Thrust shafts	C	CT or CA	CT or CA	MA		X		XM	XM (5)		X		
26	Thrust sliding blocks (frame only)	C	CT or CA	MA					XM			X		
27	Thrusters (propulsion and steering thrusters, transverse thrusters, podded propulsors, water-jets)	C	CT or CA	CT or CA	TA (8)		X		X	X		X		X

(1) Welding procedures

(2) Balancing test

(3) Hydrostatic tests

(4) Not required for shafts with diameter less than 100 mm

(5) Not required for shafts with diameter less than 250 mm

(6) Verification of anti-friction material

(7) Only for propulsion couplings

(8) Only if necessary to grant the maneuvrability of the vessel, otherwise MA

Table 7: Pressure Vessels, Heat Exchanger

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC-TURING PROCESS	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA-TION	FINAL INSPECTION AND/OR CONFORM-ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Pressure Vessels, Heat Exchanger Tab.J		cross MACH any length any GT	new cross any length any GT	ball MACH applic only for < 500GT	ball MACH < 24m								
1	Cast or forged parts for oil fired thermal oil heaters, and class 1 pressure vessels	C	CT or CA	MA				X	X	X (6)		X		
2	Cast or forged parts for class 2 pressure vessels	C	CT or CA	MA					XM	X (6)		X		
3	Cast or forged parts for class 3 pressure vessels	C	MA						XM					
4	**Class 1 pressure vessels and heat exchangers**	C	CT or CA	TA	TA	MA	X	X (1)	X (2)	X (3)	X	X	X (4)	
5	**Class 2 pressure vessels and heat exchangers**	C	CT or CA	TA	TA	MA	X	X (1)	X (9)	X (3)	X	X	X (4)	
6	Class 3 pressure vessels and heat exchangers	C	CT or CA	MA			X (6)	X	XM			X (12)	X (4)	
7	Condensers	AS REQUIRED DEPENDING ON THE CLASS OF THE PRESSURE VESSEL												
8	Control, monitoring and alarm systems	SEE TABLE Q												
9	Cylinders for hydraulic plants	SEE TABLE L												
10	EMPTY													
11	Flanges and nozzles for class 1 pressure vessels	C	CT or CA	MA				X (1)	X	X (3)		X		
12	Flanges and nozzles for class 2 pressure vessels	C	CT or CA	MA				X (1)	XM	X (3)		X		
13	Flanges and nozzles for class 3 pressure vessels	C	MA						XM					
14	Level indicators	C	CT or CA	MA			X		X (7)	X		X	X (4)	
15	EMPTY													
16	Pipes and valves	SEE TABLE K												
17	EMPTY													
18	Plates, profiles and tubesheets for class 2 pressure vessels	C	CT or CA (5)	MA				X	XM	X (6)		X		
19	Plates, profiles and tubesheets for class 3 pressure vessels	C	MA						XM					
20	Safety valves	SEE TABLE K												

21	Seamless bottles	C	CT or CA	MA			X	X	X (8)	X		X	X (10)	
22	EMPTY													
23	EMPTY													
24	Steering gear actuators	SEE TABLE C												
25	Tubes for class 3 heat exchangers	C	MA						XM					
26	EMPTY													
27	Tubes for class 2 heat exchangers	C	CT or CA	MA				X (11)	XM	X (6)			X (4)	
28	Welded bottles	C	CT or CA	MA			X	X	X (8)	XM		X	X (10)	

(1) Welding procedures

(3) On the welded joints for the extension required by the Rules

(4) Hydrostatic test – as required by the Rules

(5) Document review in lieu of CT or CA for limited supplies

(6) As required by the applicable Rules

(7) It may be scheme II for small mass produced products

(8) XM for class 2 and 3

(9) Limited to tests on welded joint production samples, as required by the Rules

(10) Burst test on prototypes and hydrostatic tests on production as required by the Rules

(11) Only for welded tubes and for seamless tubes in low alloy steel

(12) Review of conformity certificate issued by the manufacturer

Table 8: Piping

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Piping Tab.K		cross MACH any length any GT	new cross any length any GT	ball MACH applic only for < 500GT	ball MACH < 24m								
1	Centrifugal separators	C	CT or CA	MA					XM			X	X (1)	X
2	Class I and II prefabricated pipe lines (2)	C	CT or CA	CT or CA	MA			X (3)		X (4)		X	X (1)	
4	Class III prefabricated pipe lines (9)	C	CT or CA	MA								X	X (1)	
4A	Class III prefabricated pipe lines	C	MA									XM	XM (1)	
5	Compressors (complete), except associated containers and pressure vessels	C	CT or CA	MA								X	X (1)	X
6	Control, monitoring and alarm systems	SEE TABLE Q												
6A	Emergency release coupling (ERC)	C	CT or CA	MA			TA					X	X (1)	
7	Expansion joints and metallic compensators	C	CT or CA	TA	TA	MA	X (5)		XM	X (4)		X	X (1)	
8	Filters	SEE TABLE J AS PER APPLICABLE PRESSURE VESSEL CLASS												
9	Fittings for class I piping systems having internal diameter equal to or greater than 50 mm and for class II piping hav- ing internal diameter equal to or greater than 100 mm	C	CT or CA	CT or CA	MA				X	X (4)		X	X (1)	
10	Fittings for class I piping systems having internal diame- ter less than 50 mm and for class II piping having internal diameter less than 100 mm	C	CT or CA	TA	MA				XM	X (4)		X	X (1)	
11	Fittings for class III piping systems	C	MA						XM			X		
12	Fittings for plastic pipes	C	CT or CA	TA	TA	MA	TA					X	X (1)	
13	Flexible hoses – Metallic	C	CT or CA	TA	TA	MA	TA		XM	X (4)		X	X (1)	
14	Flexible hoses - Non-metallic	C	CT or CA	TA	TA	MA	TA					X	X (1)	
15	Flexible hoses conveying oil and fuel oil	SEE TABLE O												
15A	Flooding detection system	C	CT or CA	TA			X					X	X	X

15B	Hold, ballast, dry space water level detection system	C	CT or CA	TA			X					X	X	X
16	Level indicators for flammable fluids	C	CT or CA (5)	TA			X (5)			X (4)		X	X (1)	
17	Materials other than steel for pipes conveying oil or fuel oil	SEE TABLE O												
17A	Mechanical joints for pipes	C	CT or CA	TA	TA		TA		XM			X		
17B	Quick connect disconnect coupler (QCDC)	C	CT or CA	MA			TA					X	X (1)	
18	Pipes for class I piping systems having internal diameter equal to or greater than 50 mm and for class II piping having internal diameter equal to or greater than 100 mm	C	CT or CA	CT or CA				X (4)	X	X (4)		X	X (1)	
19	Pipes for class I piping systems having internal diameter less than 50 mm and for class II piping having internal di- ameter less than 100 mm	C	CT or CA	TA				X (4)	XM	X (4)		X	X (1)	
20	Pipes for class III piping systems	C	MA						XM				XM (1)	
21	Plastic pipes	C	CT or CA	TA	TA		TA					X	X (1)	
22	Prime movers for compressors	SEE TABLE D, F, L AS FAR AS APPLICABLE												
23	Prime movers for pumps	SEE TABLE D, F, L AS FAR AS APPLICABLE												
24	Pumps (complete)	C	CT or CA	MA					X (7)			X	X (1)	X (4)
25	Safety valves	C	CT or CA	MA			X (5)		X (8)	X (4)		X	X (1)	
26	Valves for class I piping systems having internal diameter equal to or greater than 50 mm and for class II piping hav- ing internal diameter equal to or greater than 100 mm	C	CT or CA	CT or CA			X (6)		X	X (4)		X	X (1)	
27	Valves for class I piping systems having internal diameter less than 50 mm and for class II piping having internal diameter less than 100 mm	C	CT or CA	TA			X (6)		XM	X (4)		X	X (1)	
28	Valves for class III piping systems	C	CT or CA	MA					XM				XM (1)	
29	Valves for sea inlet and overboard discharge	SEE TABLE B												

(1) Hydrostatic tests as required by the Rules

(2) The pipes and the components are to be previously tested as specifically required for each item

(3) Welding procedures

(4) As required by the applicable Rules

(5) TA as required by the Rules

(6) For valves not manufactured in accordance with a recognised Standard

(7) Required for casing and bolts of feed and forced circulation pumps for main boilers

(8) XM for valves having: - diameter less than 50 mm and intended for class I piping systemsv - diameter less than 100 mm and intended for class II piping systems

(9) For all piping systems mentioned in Pt C, Ch 1, Sec 10.

Table 9: Hydraulic

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Hydraulic systems Tab.L		cross MACH any length any GT	new cross any length any GT	ball MACH applic only for < 500GT	ball MACH < 24m								
1	Actuators (1) (6)	C	CT or CA	TA	TA	MA			XM				X (3)	X
2	Accumulators and oleodynamic cylinders (1) (6)	C	CT or CA	TA	TA	MA	X	X (5)	X (2)	X		X	X (3)	X
3	Control, monitoring and alarm systems	SEE TABLE Q												
4	Flexible hoses	SEE TABLE K												
5	Hydraulic motors	C	CT or CA	MA									X (3)	
6	Hydraulic motors and pumps for propulsion	C	CT or CA	MA					XM			X	X (3)	X
7	Oleodynamic packages	C	CT or CA	MA			X		X (4)	X (4)		X	X (3)	X
8	Piping, including valves, fittings and filters	SEE TABLE K												
9	Pressure filters and air coolers	SEE TABLE J												
10	Pumps – Hydraulic	SEE TABLE K and C												
11	Starters, switchboards and electric motors	SEE TABLE N												

(1) For steering gear actuators see Table C

(2) It may be XM for plants intended for embarkation ramps, hatch covers, mobile decks and similar structures

(3) Hydrostatic tests

(4) Depending on the classes of pressure components

(5) For accumulators as required by the Rules

(6) Only exposed or for essential systems

Table 10: Electrical & Control Systems

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Electrical Installations Tab.N		cross MACH any length any GT	new cross any length any GT	ball MACH applic only for < 500GT	ball MACH < 24m								
1	Batteries for essential and/or emergency services	C	MA	MA										
1A	**Batteries for battery powered ships (11) <= 20kWh**		MA	MA	MA	MA						X	X	X
1B	**Batteries for battery powered ships (11) > 20kWh**	C	CT or CA	CT or CA	CT or CA	MA	TA					X	X	X
1C	Control, monitoring and alarm systems for battery powered ships	SEE TABLE Q												
1D	Fuel cells	C	CT or CA	MA	MA	MA	TA					X	X	X
1E	Control, monitoring and alarm systems for fuel cells	SEE TABLE Q												
2	Battery chargers having rated power of 50 kVA and above	C	CT or CA	MA	MA		X					X	X (1)	X
3	Cables intended for propulsion	C	CT or CA	MA	MA	MA	TA						X	
3A	Cables not intended for propulsion system	C	MA	MA	MA		TA							
4	Circuit-breakers, contactors, etc., with nominal current greater than 100 A	C	CT or CA (5)	MA			TA					X (5)	X (5)	
4A	Disconnectors with nominal current greater than 100 A	C	CT or CA	MA								X	X	
5	Circuit-breakers, contactors, etc., with nominal current of 100 A or less	C	MA				TA							
5A	Disconnectors with nominal current of 100 A or less	C	MA											
6	Cold weather starting of generator sets (starting de- vices)	SEE TABLE P												
7	**Complete power generation sets**	C	CT or CA	CT or CA	MA		X (3)					X (2)	X (4)	X (4)
8	Distribution panels and single starters of voltage greater than 1000 V	C	CT	CT	CT		X						X	X
9	**Electric motors intended for propulsion**	C	CT or CA	MA	MA	MA	TA (6)					X	X	X

10	Electric safety lamps	SEE TABLE P													
11	Electrical appliances for hazardous areas	C	MA												
11A	Miscellaneous electric equipment (lighting fittings, heating and cooking appliances, plug and socket connection, accessories)	C	MA												
12	Electronic components and computers	SEE TABLE Q													
13	Instrumentation	SEE TABLE Q													
14	Low voltage distribution panels and single starters having nominal current greater than 100 A	C	CT	CT	CT		X (8)						X (4)	X (4)	
15	Low voltage distribution panels and single starters having nominal current of 100 A or less except those intended for steering gear motors	C	MA												
16	Low-locating lighting systems	SEE TABLE O													
17	**Main and emergency switchboards**	C	CT	CT	CT	CT (12)	X						X		
18	Navigation lights	S	TA (10)	TA (10)	TA (10)	TA (10)									
19	Navigation light switchboards	C	CT or CA	MA			X						X		
20	Rotating machines for essential services of 100 kW and over (100 kVA for generators)	C	CT or CA	MA	MA		TA (6)					X	X (9)	X	
21	Rotating machines for essential services of less than 100 kW (100 kVA for generators)	C	MA (7)	MA (7)	MA (14)							XM	XM	XM	
22	Semiconductor converters having nominal power of 50 kVA and over	C	CT or CA	MA	MA	MA (13)	TA (6)					X (1)		X	
23	Shafts for rotating machines intended for essential services (not for propulsion) other than those indicated below	C	MA						XM						
24	Shafts for rotating machines intended for propulsion and power generation whose rotors are part of the shafting lines	C	CT or CA				X		X			X			
25	Shafts for rotating machines intended for propulsion of 100 kW and over (100 kVA for generators) others than those indicated above	C	CT or CA						X			X			
26	Sound signal appliances	S	TA										X (5)		
27	Starters for steering gear motors	C	CT				X						X		
28	Switchboards and panels related to alarm systems	C	CT				X						X		
29	Switchboards for watertight door, side door and fire door control, monitoring and alarm	C	CT				X						X		
30	Transformers for essential services of 100 kVA and over (60 kVA for single phase transformers)	C	CT or CA	MA	MA		TA (6)						X		

31	Transformers for essential services of less than 100 kVA (60 kVA for single phase transformers)	C	MA (7)											
31A	Uninterruptible power system (UPS) units of 50 kVA and over	C	CT	MA										
32	Electronic devices for alarm, safety and control of electrical convertors for primary essential services	C	CT	MA			TA							
33	Cable trays/protective casings of plastic materials	C	TA (6)											
34	Busbar trunking system (outside of switchboards, distribution boards)	C	CT				TA					X	X	
35	Harmonic filters	C	CT or CA	MA								X	X	X
36	HVSC (high voltage shore connection, cold ironing, shore side electricity)	C	CT or CA	MA				X				X	X	X
37	Internal communication device (automatic exchange telephone, common battery telephone, sound powered telephone)	S	CT or CA	MA								X	X	X

(1) Including type tests (if any)
(2) For components
(3) Drawing approval is required in respect of Torsional Vibration Calculation (engine power 110 kW and above)
(4) May be postponed on board upon agreement of all interested parties
(5) If production control is not integrated in the TA
(6) Type approval or type test as required by the Rules
(7) Manufacturer's type test according to Tasneef Rules reports are to be submitted
(8) Above 100 kW
(9) In case of motors cooled with water jacket, hydrostatic pressure test to be carried as required by the Rules.
(10) For ships flying non-European Community Administration flags, whose Administrations recognise the certificates issued by Tasneef or authorise Tasneef to issue certificates on their behalf, MED for yachts flying and Administration requiring Marine Equipment Directive also for yachts
(11) Only in case of Lithium Batteries
(12) Only for Main Switchboard
(13) Only for electrical propulsion
(14) Declaration of Conformity to IEC 60034 to be submitted
(15) Only when required by Tasneef

	Control, Monitoring and Alarm Systems Tab.Q													
1	Actuators (electrical/electronic)	C	TA											
2	**Alarm system (complete)**	C	CT	TA (7)	MA (4)		X					X	X (1)	X (1)
3	Computers of Category II, III	C	TA	**TA (5)**										
3A	Computers of Category I	C	MA											
4	Consoles	C	CT				X					X	X (1)	X (1)
5	Control devices to computers of Category II, III	C	TA											
5A	Control devices to computers of Category I	C	MA											

6	**Control system (complete)**	**C**	**CT**				**X**					**X**	**X (1)**	**X (1)**
7	Electrical cables and apparatus	**SEE TABLE N**												
8	Hydraulic system	**SEE TABLE L**												
8A	Pneumatic system	**SEE TABLE K**												
9	Loading instruments	**S**	**TA (3)**											**X (1)**
10	Indicators, Instruments to computers of Category II, III	**C**	**TA**											
10A	Indicators, Instruments to computers of Category I	**C**	**MA**											
11	**Monitoring system (complete)**	**C**	**CT**				**X**					**X**	**X (1)**	**X (1)**
12	Peripherals to computers of Category II, III (keyboard, mouse, VDU, etc.)	**C**	**TA**											
12A	Peripherals to computers of Category I (keyboard, mouse, VDU, etc.)	**C**	**MA**											
13	Sensors	**C**	**TA**											
14	Software	**C**	**MA (4)**	**MA (4)**			**X**							**X (1)(2)**

(1) May be performed on board

(2) Review of software validation documentation and functional test of the whole system

(3) For yachts whose Administrations recognise the certificates issued by Tasneef or authorise Tasneef to issue certificates on their behalf

(4) To be evaluated on the scope of the software

(5) Including computers used for the vessel automation/monitoring system which functioning is not necessary for vessel proper operation and safety.

(6) Only for category III systems and automation systems which correct functioning is necessary for vessel proper operation and safety.

Table 11: Lift & Lifting Appliances

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE				DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Lifts Tab.X		cross MACH any length any GT	new cross any length any GT	ball MACH applic only for < 500GT	ball MACH < 24m								
1	Car	S	CT or CA (1)									X		
2	Fire proof doors	S	SEE TABLE O											
3	Guides	S	CT or CA (1)						X			X		
4	Hydraulic plant	S	SEE TABLE L											
5	Lift (complete)	S	CT (1)	TA	MA							X		
6	Plates and profiles for car and frames	S	CT or CA (1)						X					
7	Starters and switchboard	S	SEE TABLE N											
8	Steel ropes	S	CT or CA (1)										X (2)	
(1) Only if delegated by the Flag														
(2) Breaking strength test														
	Lifting appliances Tab.U													
5	Machinery for lifting appliances	S	CT or CA (1)									X	X	X
7	Steel bars for chains	S	MA						XM					
(1) Only if delegated by the Flag														

Table 12: Fire Protection

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Passive Fire Protection Tab.O										
1	"A" and "B" class divisions, fire integrity: a) 'A' class division, b) 'B' class division	S	MED (1) - TA (2)								
2	Bedding components	S	MED (1) - TA (2)								
3	"C " class divisions	S	MED (1) - TA (2)								
4	fire door control systems components **(4)**	S	MED (1) - TA (2)								
7	Draperies, curtains and other suspended textile mate- rials and films	S	MED (1) - TA (2)								
8	Electrical cables and apparatus for hazardous areas	SEE TABLE N									
9	Fire dampers	S	MED (1) - TA (2)								
11	Fire doors	S	MED (1) - TA (2)								
17	Materials other than steel for pipes conveying oil or fuel oil: a) Plastic pipes and fittings, b) Valves, c) Flexible pipe assemblies and compensators, d) metallic pipe components with resilient and elastomeric seals	S	MED (1) - TA (2)						X (3)		
19	Non-combustible materials	S	MED (1) - TA (2)								
20	Penetrations through “A” class divisions a) Electric cable transits, b) Pipe, duct, trunk, etc. penetrations	SC (4)	MED (1) - TA (2) (5)								
21	Penetrations through “B” class divisions; a) Electric cable transits, b) Pipe, duct, trunk, etc. penetrations	SC (4)	MED (1) - TA (2) (5)								
22	Penetrations through “C” class divisions Electrical cable transits, Non-combustible duct penetrations	SC (4)	MA TA (5)								

24	Primary deck coverings	S	MED (1) - TA (2)								
24A	Sanitary boxes	C	CT or CA								
25	Surface materials and floor coverings with low flame spread characteristics: a) Decorative veneers, b) Paint systems, c) Floor coverings, d) Pipe insulation covers, e) Adhesive used in the construction of “B” & “C” class divisions, f) Combustible ducts membrane	S	MED (1) - TA (2)								
26	Upholstered furniture: a) complete piece of furniture (including cover mate- rial, filling material and non-flammable rack), b)cover material for any filling material, c) cover material for flame-retardant filling material (tested in specific combination as intended for further application), d) flame-retardant filling material	S	MED (1) - TA (2)								
27	“A” and “B” class fire proof windows and sidescuttles	S	MED (1) - TA (2)								
(1) For yachts flying flags that recall marine equipment directive in their Safety Codes fro yachts											
(2) For yachts not flying flags that recall marine equipment directive in their Safety Codes fro yachts											
(3) Flexible hoses to be Type Approved and individually tested according to Pt C, Ch 10, in case of ball mach MA certificate is accetable											
(4) Watertight Cable Transits are to be additionally type approved by Tasneef (see Table B)											
	Active Fire Protection Tab.P										
1	Compressed air line breathing apparatus	S	MED (1) - TA (2)								
1B	Fire alarm devices (sounders)	S	MED (1) - TA (2)								
2	Nozzles for equivalent watermist fire extinguish- ing systems for machinery spaces	S	MED (1) - TA (2)								
3	Cold weather starting of generator sets (starting devices)	S	MA								
4	Concentrate for fixed high expansion foam fire-extinguishing systems for machinery spaces	S	MED (1) - TA (2)								
5	Nozzles for deep-fat cooking equipment fire-extinguishing systems (automatic or manual type)	S	MED (1) - TA (2)								

7	Dual purpose type nozzles (spray/jet type): a) Hand-held branch pipes for fire service use -	S	MED (1) - TA (2)								
8	Electric safety lamp	S	TA (2)								
9	Emergency escape breathing devices (EEBD): a) self-contained open-circuit compressed air breathing apparatus with full mask or mouthed piece assembly for escape, b) self-contained open-circuit compressed air breathing apparatus with a hood for escape, c) self-contained closed-circuit compressed air breathing apparatus	S	MED (1) - TA (2)								
10	Equivalent fixed gas fire-extinguishing system components (extinguishing medium, head valves and nozzles) for machinery spaces	S	MED (1) - TA (2)								
11	Equivalent fixed gas fire-extinguishing systems for machinery spaces (aerosol systems)	S	MED (1) - TA (2)								
13	Fire-fighting hoses: - non-percolating lay flat firefighting hoses (range of the inside diameter from 25 mm to 52 mm)	S	MED (1) - TA (2)								
14	Fixed firefighting hose systems: - hose reels with semi-rigid hose	S	MED (1) - TA (2)								
15	Fire-fighter's outfit: protective clothing (close proximity clothing): a) protective non reflective clothing for firefighting, b) reflective clothing for specialised fire-fighting, c) protective clothing with a reflective outer surface	S	MED (1) - TA (2)								
16	Fire-fighter's outfit: boots	S	MED (1) - TA (2)								
17	Fire-fighter's outfit: gloves	S	MED (1) - TA (2)								
18	Fire-fighter's outfit: helmet	S	MED (1) - TA (2)								
19	Fire-fighter's outfit: lifeline	S	MED (1) - TA (2)								
20	Fixed oxygen analysis and gas detection equipment: a) category 4: (safe area), b) category 3: (explosive gas atmospheres)	S	MED (1) - TA (2)								

21	Fixed fire detection and fire alarm systems com- ponents for control stations, service spaces, accommodation spaces, cabin balconies, machinery spaces and unattended machinery spaces a)control and indicating equipment b)power supply equipment c)heat detectors - point detectors d)smoke detectors: point detectors using scat- tered light, transmitted light or ionization e)flame detectors: point detectors f)manual call points g)short circuit isolators h)input/output devices i)cables	**S**	**MED (1) - TA (2) (3)**								
23	Fixed low expansion foam fire-extinguishing system components **(3)** for machinery spaces	**S**	**MED (1) - TA (2)**								
25	Fixed water based local application fire-fighting system components **(3)** for use in category “A” machinery spaces	**S**	**MED (1) - TA (2)**								
27	Galley exhaust duct fixed fire-extinguishing systems components **(3)**	**S**	**MED (1) - TA (2)**								
29	Helicopter facility foam firefighting appliances	**S**	**MED (1) - TA (2)**								
30	Inert gas system: a)Whole system b)single components: inert gas scrubbers c)single components: inert gas blowers	**S**	**MED (1) - TA (2)**								
32	Non-portable and transportable extinguishers	**S**	**MED (1) - TA (2)**								
34	Fixed water-based fire-fighting systems for roro spaces, vehicle spaces and special category spaces: a) prescriptive-based systems as per IMO MSC.1/Circ.1430, b) performance-based systems as per IMO MSC.1/Circ. 1430	**S**	**MED (1) - TA (2)**								
35	Nozzles for fixed pressure water-spraying fire-extinguishing systems for machinery spaces	**S**	**MED (1) - TA (2)**								

35A	Nozzles for fixed pressure water-spraying fire-extinguishing systems for cabin balconies	S	MED (1) - TA (2)								
36	Portable oxygen analysis and gas detection equipment: a) category 1: (safe area), b) category 2: (explosive gas atmospheres)	S	MED (1) - TA (2)								
38	Portable fire extinguishers	S	MED (1) - TA (2)								
39	Portable fire extinguishers for lifeboats and rescue boats	S	MED (1) - TA (2)								
40	Portable foam applicator units	S	TA (4)								
41	Pressure bottles and vessels	SEE TABLE J									
42	Protective clothing resistant to chemical attack	S	TA (4)								
43	Pumps and compressors for fixed fire extinction systems	SEE TABLE K									
44	Sample extraction smoke detection system components : control and indicating equipment. Electrical installations in ships b) power supply equipment, c) aspiring smoke detectors	S	MED (1) - TA (2)								
45	Self-contained compressed-air-operated breathing apparatus	S	MED (1) - TA (2)								
46	Self-contained compressed-air-operated breathing apparatus for entry and work in gas-filled space	S	MED (1) - TA (2)								
47	Sprinkler systems (limited to sprinkler heads)	S	MED (1) - TA (2)								
48	Sprinkler systems components for accommoda-tion spaces, service spaces and control stations equivalent to that referred to in SOLAS 74 Reg.	S	MED (1) - TA (2)								
49	Dry chemical powder extinguishing systems	S	MED (1) - TA (2)								
50	Fixed hydrocarbon gas detection system	S	MED (1) - TA (2)								
52	Fire-fighting hoses: — semi-rigid hoses for fixed systems	S	MED (1) - TA (2)								
53	Fixed firefighting hose systems — hose systems with lay-flat hose	S	MED (1) - TA (2)								
54	Paint lockers and flammable liquid lockers fire extinguishing systems components **(3)**	S	TA (4)								

55	Gaseous Fuel Systems Used for Domestic Purposes (components) **(3)**	**S**	**TA (4)**								
56	Fixed Gas Fire Extinguishing Systems (CO_2) components **(3)**	**S**	**TA (4)**								
57	Water Spraying Hand Operated System	**S**	**TA (4)**								
58	Fire hoses with diameter > 52 mm	**S**	**TA (4)**								

(1) For yachts flying flags that recall marine equipment directive in their Safety Codes fro yachts

(2) For yachts not flying flags that recall marine equipment directive in their Safety Codes fro yachts

(3) Applicable to a single component or a group of components or a whole system which needs to be tested to ensure that the applicable requirements are fulfilled.

(4) For ships flying flags whose Administrations recognise the certificates issued by Tasneef or authorise Tasneef to issue certificates on their behalf

(5) Inside/Outside air high expansion foam systems for the protection of machinery spaces vehicle and ro-ro spaces, shall be tested with the approved concentrate to the satisfaction of the Administration.

Table 13: Low Flash point fuel

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Yachts using Low Flash point Fuels.X										
1	Aluminium alloy plates and profiles for independent fuel tanks	C	CT or CA		X (1)	X	X (2)		X	X	
2	Boil-off warm-up heaters	SEE TABLE J									
3	Fuel piping insulation	C	CT or CA	TA						X	
4	Fuel pumps (main, stripping and emergency)	C	CT or CA	TA		X			X	X (4)	X
5	Control valves for glycol heating system and inert gas system	C	CT or CA			XM			X	X (4)	
6	Cryogenic fuel hoses	C	CT or CA			X	X (2)		X	X (4)	
7	Custody transfer system	SEE TABLE Q									
8	Emergency shutdown system	SEE TABLE Q									
9	Emergency towing arrangements on tankers	SEE TABLE Y									
10	Expansion joints for fuel lines	C	CT or CA	TA		X	X (2)		X	X (4)	
11	Filters	SEE TABLE J									
12	Forcing vaporiser	SEE TABLE J FOR PRESSURE PARTS									
13	Gas detection system	SEE TABLE P, Q									
14	Gas vaporisers	SEE TABLE J FOR PRESSURE PARTS									
15	Heat exchangers	SEE TABLE J									
16	Fuel compressors	C	CT or CA	X		X	X		X	X	X
17	Inert gas generator	SEE TABLE J									
18	Insulation material for fuel tanks	C	CT or CA	TA						X	
19	Level gauge for fuel tanks	C	CT or CA	X		X	X		X	X	
20	Nitrogen generator	SEE TABLE J									
21	Pipes for fuel lines	C	CT or CA	X (1)		X	X (2)		X	X (4)	
22	Pipes for cofferdam heating system	SEE TABLE K									

23	Pipes for insulation space pressurisation	SEE TABLE K									
24	Refrigerating units	SEE TABLE V									
25	Safety valves, valves and fittings for fuel piping	C	CT or CA	TA (5)	X	X (3)	X		X	X (4)	X
26	Safety valves for fuel tanks and interbarrier spaces	C	CT or CA	TA	X	X	X (2)		X	X (4)	X
27	Stainless steel for plates for membrane tanks	C	CT or CA		X (1)	X	X (2)		X	X	
28	Steel plates and profiles for independent fuel tanks	C	CT or CA		X (1)	X	X (2)		X	X	
29	Structural supports for independent tanks	C	CT or CA		X (1)	X	X (2)		X	X	
30	Temperature and pressure sensors installed in second- ary insulation space, cofferdams, ballast tanks, etc.	SEE TABLE Q									
31	Valve remote control system for fuel and ballast system	SEE TABLE Q									
32	Water detector in insulation space	SEE TABLE Q									
33	Fans in gas fuel system spaces area	SEE TABLE Y									
33	Stainless steel for plates for membrane tanks	C	CT or CA		X (1)	X	X (2)		X	X	
34	Steel plates and profiles for independent cargo tanks	C	CT or CA		X (1)	X	X (2)		X	X	
35	Structural supports for independent tanks	C	CT or CA		X (1)	X	X (2)		X	X	
36	Temperature and pressure sensors installed in second- ary insulation space, cofferdams, ballast tanks, etc.	SEE TABLE Q									
36A	Transfer pumps	C	CT or CA	TA		X			X	X (4)	X
37	Valve remote control system for ballast system	SEE TABLE Q									
38	Water detector in insulation space	SEE TABLE Q									

(1) The acceptance of products supplied by unapproved Manufacturers may be considered for limited supplies and additional tests may be required

(2) As required by the Rules

(3) XM when the diameter is less than 50 mm

(4) Hydrostatic test

(5) Type test for pumps and valves with minimum working temperature below -55° C

Table 14: Pollution Prevention

		ORIGIN OF THE REQUIREMENT		DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Pollution Prevetnion systems Tab.M										
1	Ballast water treatment system	S (1)	TA (3)	X					X	X	X
1A	Equipment using other equivalent methods to reduce on board emissions	S (1)	TA (3)								
1B	Equipment using other technological methods to limit emissions	S (1)	TA								
2A	NOx analyser permanently placed on board and for use on board as per Technical Code 2008	S (1)	TA (2)								
3	Oil content meters	S (1)	TA (2)								
4	Oil discharge monitoring and control system for oil tanker	S (1)	TA (2)								
5	Oil/water interface detectors	S (1)	TA (2)								
6	Oil filtering equipment (for an oil content of the effluent not exceeding 15 p.p.m.)	S (1)	TA (2)								
7	On board exhaust gas cleaning system	C (4)	TA								
8	On board NOx analysers using a measurement method other than the Direct Measurement and Monitoring Method of the Technical Code 2008	S (1)	TA (3)								
11	Sewage treatment plants	S (1)	TA (2)								
12	Shipboard incinerators	S (1)	TA (2)			XM					

(1) Required also by class if part of the item of GREEN PLUS (Y) notation

(2) For ships flying non-European Community Administration flags, whose Administrations recognise the certificates issued by Tasneef or authorise Tasneef to issue certificates on their behalf, MED for yachts flying and Administration requiring Marine Equipment Directive also for yachts

(3) For ships flying flags whose Administrations recognise the certificates issued by Tasneef or authorise Tasneef to issue certificates on their behalf

(4) If required for GREEN PLUS (Y)

Table 15: Radio

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Radio Tab.T										
1	406 MHz EPIRB (COSPAS-SARSAT)	S	MED (1) (2)								
2	Aeronautical two-way WHF radiotelephone apparatus	S	MED (1) (2)								
4	EGC receiver	S	MED (1) (2)								
4A	Fire-fighter's two-way radiotelephone apparatus	S	MED (1) (2)								
5	Fixed survival craft two-way VHF radiotelephone apparatus	S	MED (1) (2)								
6	HF marine safety information (MSI) equipment (HF NBPD receiver)	S	MED (1) (2)								
8	Inmarsat-C SES	S	MED (1) (2)								
8A	Integrated communication system (ICS)	S	MED (1) (2)								
10	MF radio capable of transmitting and receiving DSC and radiotelephony	S	MED (1) (2)								
10A	MF/HF DSC scanning watch keeping receiver	S	MED (1) (2)								
11	MF/HF radio capable of transmitting and receiving DSC, NBPD and radiotelephony	S	MED (1) (2)								
12	MF, DSC watchkeeping receiver	S	MED (1) (2)								
13	NAVTEX receiver	S	MED (1) (2)								
14	Portable survival craft two-way VHF radiotele- phone apparatus	S	MED (1) (2)								
14A	Ship Earth station for use in the GMDSS - Inmarsat C equipment	S	MED (1) (2)								
15	VHF DCS watchkeeping receiver	S	MED (1) (2)								
16	VHF radio capable of transmitting and receiving DSC and radiotelephony	S	MED (1) (2)								

(1) For yachts flying flags that recall marine equipment directive in their Safety Codes for yachts, for yachts flying Flags not recalling marine equipemnt directive in thier Safety Codes accepted by the Administration

(2) Tasneef is not authorised to issue MED certificates for radio-communications equipment

Table 16: Navigation Equipment

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	Navigation Equipment Tab.S										
1	Search and rescue locating devices (SRLD) - 9 GHz SAR transponder (SART)	S	MED (1) - TA (2)								
1A	Bridge Navigational Watch Alarm System (BNWAS)	S	MED (1) - TA (2)								
4	Combined GPS/GLONASS equipment	S	TA (3)								
4A	Compass bearing device	S	MED (1) - TA (2)								
5	Magnetic compass (class B for lifeboats and rescue boats)	S	MED (1) - TA (2)								
6	Daylight signalling lamp	S	MED (1) - TA (2)								
7	DGPS equipment	S	MED (1) - TA (2)								
7A	DGLONASS equipment	S	MED (1) - TA (2)								
7B	Differential beacon receiver for DGPS and DGLONASS equipment	S	MED (1) - TA (2)								
8	Echo-sounding equipment	S	MED (1) - TA (2)								
9	Electronic chart display and information system (ECDIS) with backup, and raster chart display system (RCDS)	S	MED (1) - TA (2)								
9A	Electronic Inclinometer	S	TA (3)								
10	GLONASS equipment	S	MED (1) - TA (2)								

10A	GNSS Equipment Incorporating one or more of the fol- lowing elements: -GPS equipment -GLONASS equipment -DGPS Equipment -DGLONASS Equipment -Galileo Equipment -Beidou (BDS)	S	MED (1) - TA (2)								
11	GPS equipment	S	MED (1) - TA (2)								
12	Gyrocompass	S	MED (1) - TA (2)								
14	Heading control system (HCS)	S	MED (1) - TA (2)								
16	Integrated navigation system	S-C (3)	MED (1) - TA (2)								
19	Magnetic compass (class A for yachts)	S	MED (1) - TA (2)								
19A	Magnetic compass (class B for lifeboats and rescue boats)	S	MED (1) - TA (2)								
20A	Nautical publications in digital form as defined by SOLAS V27	S	TA (3)								
21A	Pilot ladder	S	MED (1) - TA (2)								
22	Pitch indicator	S	MED (1) - TA (2)								
23	Propeller revolution indicator	S	MED (1) - TA (2)								
28	Radar equipment: -CA 1 -CAT 2 -CAT 3 -CAT 1H -CAT 2H	S	MED (1) - TA (2)								
29	Radar reflector - passive type	S	MED (1) - TA (2)								
30	Radar target enhancer	S	MED (1) - TA (2)								
31	Rate-of-turn indicator	S	MED (1) - TA (2)								
32	Rudder angle indicator	S	MED (1) - TA (2)								

32A	Search and rescue locating devices (SRLD) - AIS SART equipment	S	MED (1) - TA (2)								
33A	Simplified voyage data recorde (S-VDR)	S	MED (1) - TA (2)								
34	Sound reception system	S	MED (1) - TA (2)								
35	Speed and distance measuring equipment (SDME)	S	MED (1) - TA (2)								
36	Thrust indicator	S	TA (2)								
37	Track control system	S	MED (1) - TA (2)								
37A	Track control system for high-speed craft	S	TA (3)								
38A	Track control system (working at yacht's speed from 30 knots and above)	S	TA (3)								
38	Transmitting heading device THD (GNSS method)	S	MED (1) - TA (2)								
39	Transmitting heading device THD (gyroscopic method)	S	MED (1) - TA (2)								
40	Transmitting heading device THD (magnetic method)	S	MED (1) - TA (2)								
43	Universal automatic identification system equipment (AIS)	S	MED (1) - TA (2)								
44	Voyage data recorder (VDR)	S	MED (1) - TA (2)								

(1) For yachts flying flags that recall marine equipment directive in their Safety Codes for yachts, for yachts flying Flags not recalling marien equipemnt directive in thier Safety Codes accepted by the Administration

(2) For yachts not flying flags that recall marine equipment directive in their Safety Codes for yachts, whose Administrations recognise the certificates issued by Tasneef or authorise Tasneef to issue certificates on their behalf

(3) For yachts flying flags whose Administrations recognise the certificates issued by Tasneef or authorise Tasneef to issue certificates on their behalf

Table 17: LSA

		ORIGIN OF THE REQUIREMENT	TYPE OF CERTIFICATE	DRAWING OR DESIGN APPROVAL	MANUFACTURER AND/ OR MANUFAC- TURING PROCESS APPROVAL	MATERIAL TESTING	NDT	SHOP ATTENDANCE DURING FABRICA- TION	FINAL INSPECTION AND/OR CONFORM- ITY VERIFICATION	FINAL TESTS	FUNCTIONING TESTS
	LSA Tab.R										
1	Automatically self-righting liferafts:a) inflatable b) rigid	S	MED (1) - TA (2)								
2	Buoyant smoke signals (pyrotechnics)	S	MED (1) - TA (2)								
3	Canopied reversible liferafts	S	MED (1) - TA (2)								
6	Embarkation ladders	S	MED (1) - TA (2)								
7	Fast rescue boat launching appliances (Davits)	S	MED (1) - TA (2)								
8	Fast rescue boats: a) inflated b) rigid c) rigid-inflated	S	MED (1) - TA (2)								
9	Float-free arrangements for liferafts (hydrostatic release units)	S	MED (1) - TA (2)								
9A	Float-free launching appliances for survival craft	S	TA (3)								
10	Hand flares (pyrotechnics)	S	MED (1) - TA (2)								
11	Immersion suit materials	S	TA (3)								
12	Immersion suits and anti-exposure suits designed to be worn in conjunction WITH a life jackets: a)immersion suit without inherent insulation b)immersion suit with inherent insulation c)anti-exposure suits	S	MED (1) - TA (2)								

12A	Immersion suits and anti-exposure suits designed to be worn in conjunction WITHOUT a life jackets: a)immersion suit without inherent insulation b)immersion suit with inherent insulation c)anti-exposure suits	S	MED (1) - TA (2)								
13	Inflatable liferafts	S	MED (1) - TA (2)								
14	Inflated rescue boats	S	MED (1) - TA (2)								
17	Launching appliances using fall (davits) (4)	S	MED (1) - TA (2)								
18	Life jackets	S	MED (1) - TA (2)								
19	Lifeboat/rescue boat propulsion engine	S	MED (1) - TA (2)								
20	Lifeboats: a)Davit-launched lifeboats: -partially enclosed -totally enclosed	S	MED (1) - TA (2)								
21	Lifebuoys	S	MED (1) - TA (2)								
22	Lifebuoys' self-activating smoke signals	S	MED (1) - TA (2)								
23	Liferaft launching appliances (Davits)	S	MED (1) - TA (2)								
27	Line-throwing appliances	S	MED (1) - TA (2)								
29	Marine evacuation systems	S	MED (1) - TA (2)								
30	Means of rescue	S	MED (1) - TA (2)								
33	Open reversible liferafts	S	MED (1) - TA (2)								

34	Position-indicating lights for life-saving appliances: a)for survival craft and rescue boats b)for lifebuoys c)for lifejackets	S	MED (1) - TA (2)								
35	Public address and general alarm system (fire alarm excluded)	S	TA (3)								
36	Radar reflector for lifeboats and rescue boats (pas- sive)	S	MED (1) - TA (2)								
37	Radar reflector for liferafts	S	TA (3)								
39	Release mechanism for: a)lifeboats and rescue boats (launched by a fall or falls) b)liferafts (launched by a fall or falls) c)for lifejackets	S	MED (1) - TA (2)								
40	Rescue boat propulsion engine – Outboard engines	S	MED (1) - TA (2)								
41	Retro-reflective materials	S	MED (1) - TA (2)								
42	Rigid liferafts	S	MED (1) - TA (2)								
43	Rigid rescue boats	S	MED (1) - TA (2)								
43A	Rigid-infilated rescue boats	S	MED (1) - TA (2)								
44	Rocket parachute flares (pyrotechnics)	S	MED (1) - TA (2)								
45	Searchlight for use in lifeboats and rescue boats	S	MED (1) - TA (2)								
46	Thermal protective aids	S	MED (1) - TA (2)								
48	Winches for survival crafts and rescue boats: a)davit launched lifeboats c)liferafts d)rescue boats	S	MED (1) - TA (2)								

(1) For yachts flying flags that recall marine equipment directive in their Safety Codes for yachts, for yachts flying Flags not recalling

marien equipemnt directive in thier Safety Codes accepted by the Administration

(2) For yachts not flying flags that recall marine equipment directive in their Safety Codes for yachts, whose Administrations recognise the certificates issued by Tasneef or authorise Tasneef to issue certificates on their behalf

(3) For yachts flying flags whose Administrations recognise the certificates issued by Tasneef or authorise Tasneef to issue certificates on their behalf

(4) Testing of steel ropes is required

APPENDIX 4 CMS AND PMS SYSTEMS SURVEYS CARRIED OUT BY THE CHIEF ENGINEER

1 Documentation

1.1 Aim of the Appendix

1.1.1 The basic conditions for the acknowledgment of surveys carried out by Chief Engineers are specified hereafter. Consideration may be given to other conditions on a case by case basis.

1.1.2 The Company is responsible for ensuring that the Chief Engineer is qualified to register and carry out maintenance on all class-related items.

1.1.3 The Chief Engineer must be a permanent employee of the Company. He must have been working in this position for a reasonable period of time or have possessed the recognition by The Society for another Company by which he was employed. He is to hold a certificate of competency according to the requirements of the flag Administration for the power of the main propulsive installation of the yacht. He is to have at least one year of seagoing experience as Chief Engineer Officer on yachts of the type (motor, gas, electric or steam yacht) for which he will be qualified.

1.1.4 The Owner is also to provide the Chief Engineer with a copy of this Appendix, enabling him to familiarise himself with the conditions, scope and limits of his interventions. The authorisation ceases to be valid when the Chief Engineer leaves the Company.

2 Limits of the interventions

2.1

2.1.1 For yachts where the CMS is implemented, the following items of the class renewal survey for machinery cannot be inspected by the Chief Engineer:

- pressure vessels
- main and auxiliary turbines
- main reduction gears
- crankshafts, with associated main bearings and bottom end connecting rod bearings, of main propulsion internal combustion engines. However, bottom end connecting rod bearings of diesel engines having trunk pistons may be inspected by the Chief Engineer when the complete associated cylinder is inspected in the course of the engine maintenance program
- turbochargers of main propulsion internal combustion engines
- intermediate shafting and associated bearings
- steering gear system, including pumps.

Generally, within a 10-year cycle comprising two consecutive class cycles, all the items surveyed under PMS are to be inspected once by The Society Surveyors. The attention of Chief Engineers is drawn to the fact that surveys performed by them in ports which are under the jurisdiction of a The Society office, or during very short voyages between ports where The Society Surveyors are available, will not be credited.

2.1.2 For yachts where the PMS system is implemented, the items indicated in [2.1.1] above cannot be surveyed by the Chief Engineer with the exception of:

- main and auxiliary turbines
- crankshafts and associated bearings
- turbochargers of main propulsion internal combustion engines,
- intermediate shafting and associated bearings

Moreover, in such case the confirmatory survey is to include the checks indicated in [5.1.4].

In no case may the surveys of the following items be carried out by the Chief Engineer:

- pressure vessels (except class 2 and 3 heat exchangers)
- main reduction gears
- steering gear system, including pumps.

2.1.3 In no case may the surveys of tailshafts and boilers, which are items not included in the scope of the class renewal survey, be carried out by the Chief Engineer.

3 Procedure for carrying out surveys

3.1 General

3.1.1 As regards the procedure for carrying out surveys, the Owner is to inform the Chief Engineer that surveys are to be conducted in accordance with The Society Rules and, specifically, the requirements for class renewal surveys related to machinery and systems contained in Ch 3, Sec 3, [3].

It is the responsibility of the yacht's Captain and Chief Engineer to decide the date and place for the survey of each component in order to avoid possible accidents (fire included) in the event of damage to the unit(s) re-maining in service.

Some guidelines for the Chief Engineer relevant to the dismantling and inspections of main components of the machinery installation are given below.

The items and/or machinery which, as a result of the surveys, are replaced due to wear, damage or defects, are to be kept on board until they are inspected by a the Society Surveyor.

3.2 Main diesel engines

3.2.1 The following items are to be surveyed as indicated:

- the top and bottom halves of the main bearings are to be removed and inspected, and the clearances are to be taken, recorded and compared with the limits recommended by the engine builder
- the top and bottom halves of crankpin bearings are to be examined, and the clearances are to be taken, recorded and compared with the limits recommended by the engine builder
- crankpins, journals and webs are to be examined for crack detection, mainly at the fillets and in the vicinity of the lubricating oil holes
- crankshaft deflections are to be taken and recorded at regulars intervals, enabling verification of the trend when they are taken in the presence of the Society’s Surveyor. This operation is to be effected bearing in mind that during the readings the journals are to be steady on their bearings
- other parts exposed to wear or operating incidents are to be carefully examined and the results recorded. In particular, the wear of liners is to be measured and recorded.

3.3 Auxiliary diesel engines

3.3.1 The survey generally consists in the complete dismantling of the engine and a careful examination of those items most liable to be exposed to wear or operating incidents. In particular:

- crankshaft deflections and wear of cylinder liners are to be measured
- the crankshaft is to be checked by means of dye penetrant in way of fillets and lubricating oil holes
- all top halves of the main bearings together with at least two bottom halves are to be dismantled
- crankcase explosion relief valves, if fitted, are to be checked.

3.4 Reciprocating compressors

3.4.1 The survey is to include:

- dismantling of pistons and valves for inspection
- examination and testing of the nest of cooler tubes
- verification of safety relief valves after reassembling.

3.5 Coolers, condensers, heaters

3.5.1 The survey is to include:
- dismantling of the covers
- examination of the nest of tubes
- testing of the nest of tubes, if necessary.

3.6 Electrical switchboard

3.6.1 The survey is to include:
- cleaning of the switchboard
- verification of the connection assemblies, locking device tightening and busbar tightening
- examination of the condition of the circuit-breakers, switches and fuses
- verification of the contacts and screens
- checking of the measuring instruments, which are to be re-calibrated or replaced, if inaccurate
- megger test.

3.7 a.c. and d.c. generators

3.7.1 The survey is to include:
- removal of protection plates and brush carriers
- cleaning of field coils and armature windings
- verification of proper contact of brushes, which are to be renewed if excessively worn
- verification of commutators and sliprings
- measurement of air gap clearances
- checking of journals and bearings
- megger test.

3.8 Other items (pumps, electric motors, etc.)

3.8.1 The survey is generally to include the complete dismantling for inspection of the main parts exposed to wear or operating incidents, such as bearings, casings, impellers and rotors.

4 Records of surveys carried out

4.1

4.1.1 The surveys carried out by the Chief Engineer are to be recorded in the engine/machinery log-book and a survey report is to be prepared for each item surveyed. The report is generally to be drawn up in English; however, for yachts trading in specific restricted areas the use of the language of the country concerned will be accepted. The report may be provided in hard copy or using a computerised recording system.

4.1.2 The report is to indicate the following information:
- identification data:
  - name of yacht and register number
  - name of Chief Engineer
  - date and place (port or voyage leg) of the survey
  - reference of the item in the CMS or PMS list, and description of the item
- inspection conducted:
  - the type of inspection carried out: visual external examination, internal examination after dismantling, overhaul
  - readings performed, when applicable: clearances, measurements, working pressure, or other working parameters of the equipment
  - inspection findings: corrosion, fractures, pieces of equipment worn out, broken or missing
- maintenance and repairs carried out and parts replaced
- results of tests performed after the inspection, such as working test, pressure test.

For sake of completeness, other documentation such as sketches, photos, measurement reports may be attached to the report.

The report is to be signed by the Chief Engineer.

5 Confirmatory survey

5.1

5.1.1 A confirmatory survey, to be carried out by a Surveyor of the Society, is to be requested according to the following principle:

- for yachts under the CMS system, within a reasonably short time from the date of the surveys carried out by the Chief Engineer, and, in any case, in the first port which is under the jurisdiction of an Office of the Society
- for yachts under the PMS system, at the next annual audit.

5.1.2 The Surveyor is to be supplied with a copy of this survey report and also shown the engine log-book.

5.1.3 The Surveyor carries out an external examination of the relevant items and parts replaced and, if applicable, attends running tests. If doubts arise, the Surveyor may request dismantling as deemed necessary.

5.1.4 If the persons on board are authorised to survey the main engine crankshaft and bearings (see [2.1.2]), the Surveyor performs the following:

- check of condition monitoring records
- check of crankshaft deflection readings
- check of bearing clearances (where possible)
- checks for signs of wiped or broken white metal in the crankcase or filters
- check of the witness marks of shrink fits of crankshafts
- check of the bedplate structure (inside and outside)
- check that the condition of crankpins, journals and associated bearings is duly recorded.

5.1.5 Where the confirmatory survey is performed with an abnormal delay, the inspection is to be more extensive and, if necessary, the due surveys are to be completely repeated.

5.1.6 The date of the execution of the surveys will be assumed to be the date of the confirmatory survey.

APPENDIX 5 THICKNESS MEASUREMENTS: EXTENT, DETERMINATION OF LOCATIONS AND ACCEPTANCE CRITERIA

1 General

1.1 Aim of the Appendix

1.1.1 Thickness measurements are a major part of surveys to be carried out for the maintenance of class, and the analysis of these measurements is a prominent factor in the determination and extent of the repairs and renewals of the yacht's structure.

1.1.2 The Appendix is intended to provide Owners, companies performing thickness measurements and Tasneef's Surveyors with a uniform means with a view to fulfilling Rule requirements for thickness measurements. In particular, it will enable all the above-mentioned parties to carry out:

- the planning and preparation
- the determination of extent and location, and
- the analysis of the thickness measurements in cooperation.

1.2 Scope of the Appendix

1.2.1 Separate Articles below provide the following information:

- references to rule requirements and some additional information on the extent of the thickness measurements to be performed during surveys according to types of yachts and related surveys (see [2])
- locations of the measurements for the main parts of the yacht (see [3])
- how to analyse the results of thickness measurements (see [4]).

2 Rule requirements for the extent of measurements

2.1 General

2.1.1 For the maintenance of class, thickness measurements may be required during annual, intermediate and class renewal surveys.

Tab 1 gives references to the requirements for the minimum thickness measurements indicated in Chapter 3 related to the different types of surveys.

Some additional explanations are also given about the wording used in these Rules as well as the general principles of the thickness measurements required during class renewal surveys.

Table 1 : References to Rule requirements related to thickness measurements

TYPE OF SURVEY	
CLASS RENEWAL	INTERMEDIATE
Ch 3, Sec 2, (2.5) and Ch 3, Sec 2, Tab 2: systematic measurements and suspect areas. Where substantial corrosion is found, the ex-tent of thickness measurements may be in-creased to the Survey-or's satisfaction, using Ch 3, Sec 2, Tab 3 as guidance	Ch 3, Sec 1, Tab 1: thickness measurements to be taken if deemed necessary by the Surveyor Where substantial corrosion is found, the ex-tent of thickness measurements may be in-creased to the Surveyor's satisfaction, using Ch 3, Sec 2, Tab 3 as guidance

2.2 Class renewal survey

2.2.1 The thickness measurements required by the Rules consist of:

- systematic thickness measurements, i.e. measurements of different parts of the structure in order to assess the overall and local strength of the yacht;
- measurements of suspect areas as defined in Sec 2, [2.1.11];

- additional measurements on areas determined as affected by substantial corrosion as defined in Sec 2, [2.1.12].

3 Number and locations of measurements

3.1 General

3.1.1 Considering the extent of thickness measurements as required by the Rules and indicated in [2] above, the locations of the points to be measured are given here for the most important items of the structure. Thus the number of points can be estimated.

3.2 Locations of points

3.2.1 Tab 2 provides explanations and/or interpretations for the application of those requirements indicated in these Rules which refer to both systematic thickness measurements related to the calculation of global hull girder strength and specific measurements.

Figures are also given to facilitate the explanations and/or interpretations given in the table. These figures show typical arrangements of yachts.

Due to the various designs of the other yacht types, figures are not given to cover all the different cases. How-ever, the figures provided here may be used as guidance for yachts other than those illustrated.

4 Acceptance criteria for thickness measurements

4.1 General

4.1.1 Acceptance criteria stipulate limits of wastage which are to be taken into account for reinforcements, repairs or renewals of steel structure. These limits are generally expressed for each structural item as a maximum percentage of acceptable wastage (W). When the maximum percentage of wastage is indicated, the renewal thickness t_{ren} (minimum acceptable thickness) is that resulting from applying this percentage to the rule thickness (t_{rule}), according to the following formula:

$$t_{ren} = \left(1 - \frac{W}{100}\right) t_{rule}$$

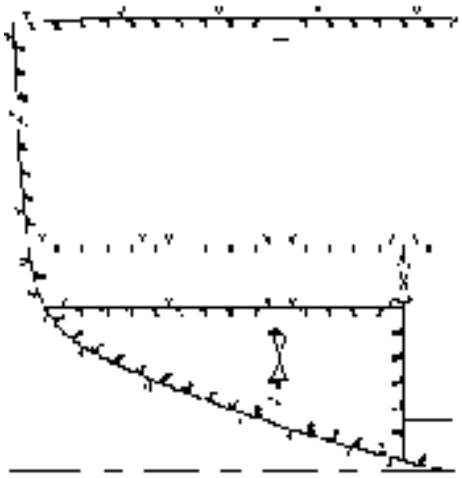
However, when the rule thickness is not available, the as-built thickness can be used.

Only for criteria related to an item (see [4.3.3] b), Tasneef may establish a list of renewal thicknesses tailored to the different structural items. In such case these thicknesses are used in lieu of the minimum thicknesses calculated from the percentage of wastage.

Table 2 : Interpretations of rule requirements for the locations and number of points to be measured

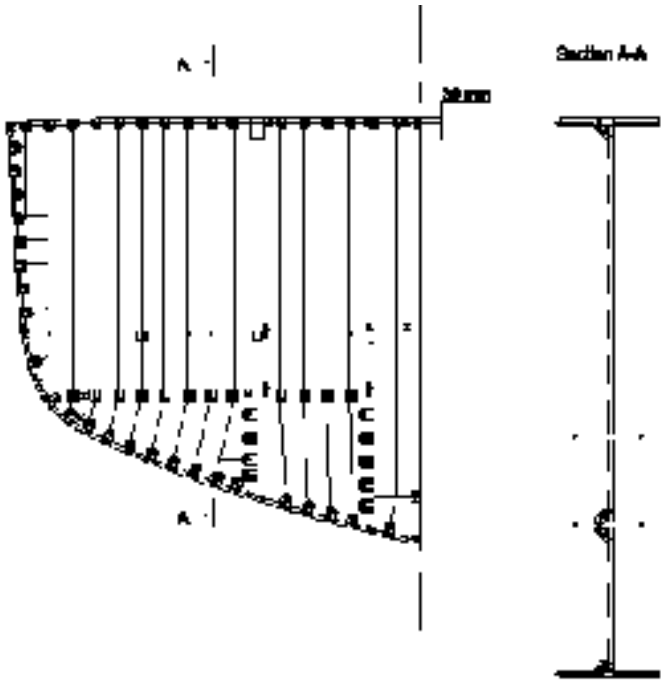
ITEM	INTERPRETATION	FIGURE
Selected plates on deck, tank top, bottom, double bottom and wind-and-water	“Selected” means at least a single point on one out of three plates, to be chosen on representative areas of average corrosion	No figure
All deck, tank top and bottom plates and wind-and-water strakes	At least two points on each plate to be taken either at each 1/4 extremity of plate or at representative areas of average corrosion	No figure
Transverse section	Refer to the definition given in Sec 2, (2.1.10)	Figure 1
Bulkheads	“Selected bulkheads” means at least 50% of the bulkheads	Figure 2
Selected internal structure such as floors and longitudinals, transverse frames, web frames, deck beams, ‘tweendecks, girders	The internal structural items to be measured in each space internally surveyed are to be at least 20% within the cargo area and 10% outside the cargo area	Figure 3

Figure 1 : Transverse section



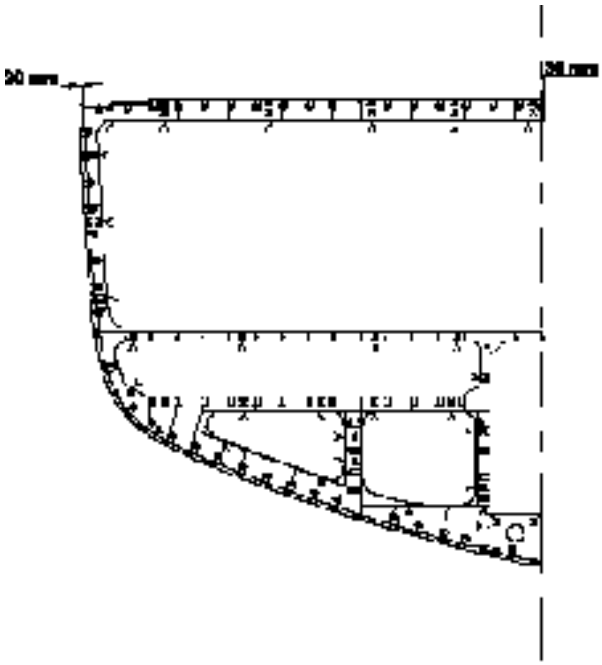
Measurements are to be taken on both port and starboard sides of the selected transverse section

Figure 2 : Locations of measurements of measurements on bulk-heads



Bulkhead/watertight floor plating to be measured as per main view: one stiffener out of three to be measured as per view A - A.

Figure 3 : Locations of measurements on selected internal structural elements



Cargo hold bulkhead/watertight floor plating to be measured as per main view

4.1.2 In cases where the yacht has some structural elements with reduced wear margins (e.g. due to yacht conversion, increase of draught), the minimum acceptable thickness for these elements is to be calculated with reference to the Rule scantlings without taking account of any reduction originally agreed.

4.1.3 Decisions on steel renewals are taken by the attending Surveyor applying the criteria given in this Article and based on his judgment and the actual condition of the yacht. Should advice be needed to support his decision, the Surveyor may refer to the relevant technical office of Tasneef.

4.2 Criteria

4.2.1 The acceptance criteria for the minimum thicknesses are divided into:

- criteria on local and global strength, given in [4.3]
- criteria on buckling strength, given in [4.4]
- criteria on pitting, given in [4.5].

4.2.2 Each structural item measured is to be checked against the following criteria, as far as applicable. Where any of the criteria are not met, reinforcements, repairs and renewals are to be carried out as appropriate.

4.3 Local and global strength criteria

4.3.1 For the evaluation of the yacht longitudinal strength, it is a prerequisite that fillet welding between longitudinal members and deck, side and bottom plating is maintained effective so as to keep continuity of hull structures.

4.3.2 Each structural item to be assessed is illustrated in a typical transverse section (see Fig 5).

These structural items are also listed in a table (Tab 5) grouped according to their position and contribution to the local or global strength of the yacht.

4.3.3 Each structural item is to be assessed according to four different criteria which vary with regard to the domain under which it is considered, namely:

a) an isolated area, which is meant as a part of a single structural item. This criterion takes into consideration very local aspects such as grooving of a plate or web, or local severe corrosion; however, it is not to be used for pitting for which separate criteria are considered (see [4.5])

b) an item, which is meant as an individual element such as a plate, a stiffener, a web, etc. This criterion takes into consideration the average condition of the item, which is assessed by determining its average thickness using the various measurements taken on the same item

c) a group of items, which is meant as a set of elements of the same nature (plates, longitudinals, girders) contributing either to the global longitudinal strength of the yacht in a given zone or to the global strength of other primary transverse elements not contributing to the yacht longitudinal strength, e. g. bulkheads, web frames

d) a zone, which is meant as all and only longitudinal elements contributing to the longitudinal strength of the yacht; in this regard, the three main zones are defined as deck zone, neutral axis zone and bottom zone. This criterion takes into consideration the average condition of all groups of items belonging to the same zone.

4.3.4 The assessment of the thickness measurements is to be performed using the values given in the tables for each structural element with regard to the criteria defined above, in the following order:

a) assessment of isolated areas (column 1 in all tables). If the criterion is not met, the wasted part of the item is to be dealt with as necessary.

b) assessment of items (column 2 in all tables). If the criterion is not met, the item is to be dealt with as necessary in the measured areas as far as the average condition of the item concerned is satisfactory. In cases where some items are renewed, the average thicknesses of these items to be considered in the next step are the new thicknesses.

c) assessment of groups of items (column 3 in the tables). If the criterion is not met, a sufficient number of elements are to be renewed in order to obtain an increased average thickness satisfying the considered criterion of the group (generally the elements to be renewed are those most wasted). As an example, for the assessment of the group "deck plates", all deck plates are measured and an average thickness of each of them is estimated. Then the average of all these values is to satisfy the criteria given for this group.

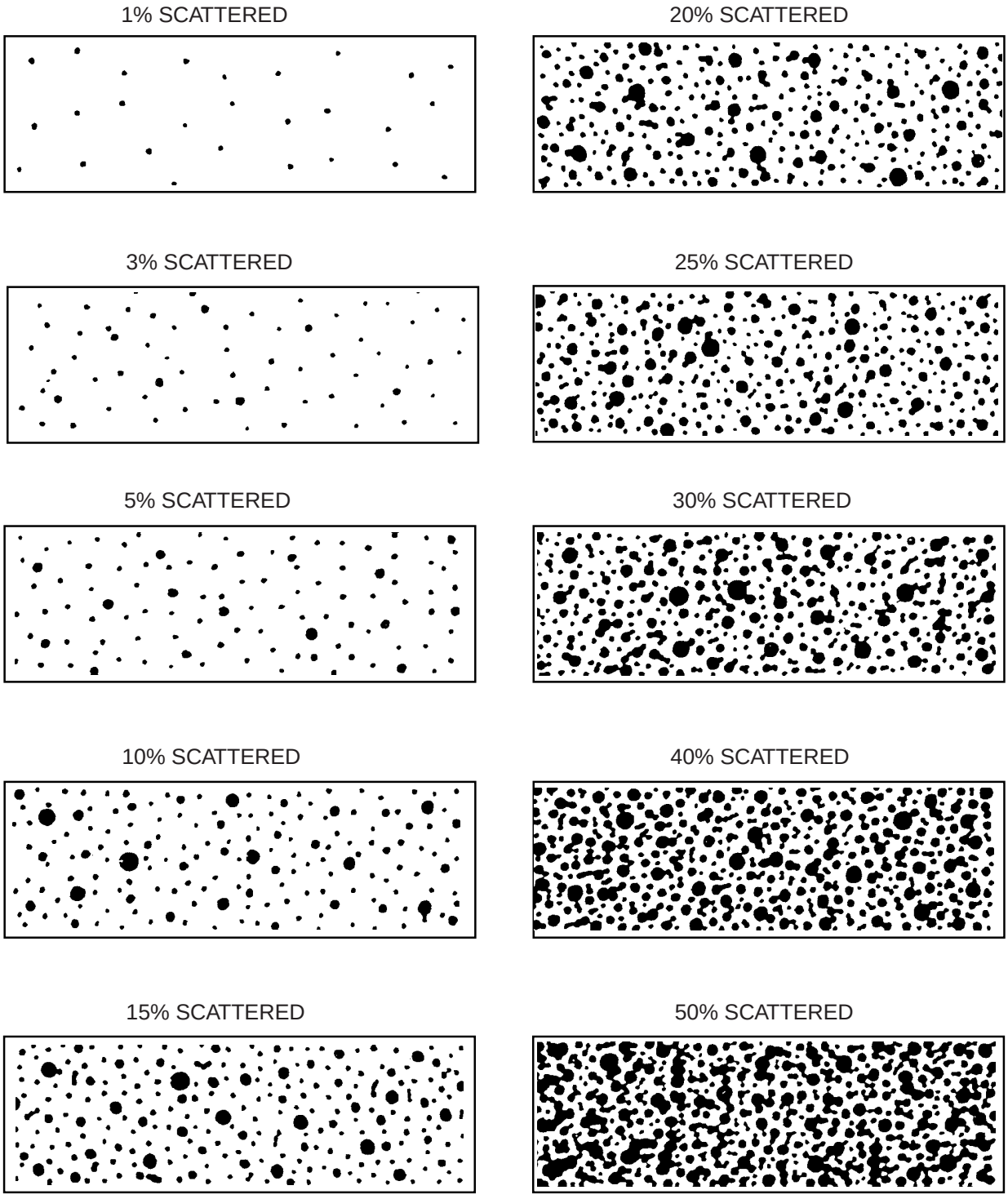
d) assessment of zones (column 4 in the tables). In principle, the criterion of the zone is met when all groups of items belonging to the zone meet their own criteria (see c) above). However, a greater diminution than those given in column 3 may be accepted for one group of items if, considering the other groups of items be-longing to the same zone, the overall diminution of the zone does not exceed the criterion given for it in column 4.

   Example: The deck zone consists of two groups of items:

   - deck plating, which has an average diminution of 12% (criterion 10%)
   - deck longitudinals, which has an average diminution of 4% (criterion 10%)

   Even though the deck plating group exceeds its acceptance criterion, the average diminution of the zone, which can be very roughly estimated at 8%, is acceptable and thus the deck plating group can be accepted as it is.

Figure 4 : Pitting intensity diagrams (from 1% to 50% intensity)



4.4 Buckling strength criterion

4.4.1 This criterion is applicable to yachts having a length greater than 120 metres.

In addition to the evaluation of structural elements according to [4.3] above, the structural items contributing to the longitudinal strength of the yacht, such as deck and bottom plating, deck and bottom girders, etc, are al-so to be assessed with regard to their buckling strength. The values shown in Tab 3 are not to be exceeded.

Note 1: The minimum thickness will be specially considered for yachts built with excess hull girder section modu-lus.

Table 3 : Buckling strength criterion

ITEMS		RATIO	MATERIAL (R_{eH})		
			235	315	355 and 390
Bottom and deck plates		s / t	56,0	51,0	49,0
Longitudinals	flat bar web	h_w / t_w	20,0	18,0	17,5
Flanged longitudinals / girders	web	h_w / t_w	56,0	51,0	49,0
Flanged longitudinals / girders	symmetrical flange	b_f / t_f	34,0	30,0	29,0
Flanged longitudinals / girders	asymmetrical flange	b_f / t_f	17,0	15,0	14,5

Symbols:
R_{eH} : minimum yield stress of the material, in N/mm^2;
s : longitudinal spacing, in mm
t : actual plate thickness, in mm;
h_w : web height, in mm; t_w : web thickness, in mm;
b_f : flange breadth, in mm;
t_f : flange thickness, in mm;

4.5 Pitting

4.5.1 The maximum acceptable depth for isolated pits is 35% of the as-built thickness.

4.5.2 For areas with different pitting intensity, the intensity diagrams shown in Fig 4 are to be used to identify the percentage of affected areas.

For areas having a pitting intensity of 50% or more, the maximum acceptable average depth of pits is 20% of the as-built thickness. For intermediate values between isolated pits and 50% of affected area, the interpolation between 35% and 20% is made according to Tab 4.

Table 4 : Pitting intensity and corresponding maximum acceptable average depth of pitting

PITTING INTENSITY (%)	MAXIMUM ACCEPTABLE AVERAGE PITTING DEPTH (% of the as-built thickness)
Isolated	35,0
5	33,5
10	32,0
15	30,5
20	29,0
25	27,5
30	26,0
40	23,0
50	20,0

4.5.3 In addition, the thickness outside the pits in the area considered is to be assessed according to [4.3] and [4.4] above.

Note 1: Application of filler material (plastic or epoxy compounds) is recommended as a means to stop or reduce the corrosion process, but it is not considered an acceptable repair for pitting exceeding the maximum allowable wastage limits. Welding repairs may be accepted when performed in accordance with procedures agreed with Tasneef.

Figure 5 : Transverse section: layout of items to be assessed

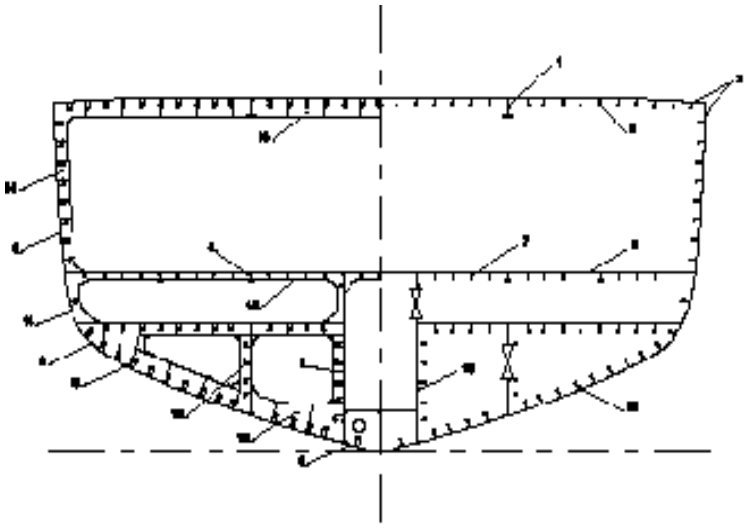


Table 5 : Local and global acceptance criteria for yacht (given in % of wastage)

Group of items	Description of items	1 Isolated area	2 Item	3 Group	4 Zone
ITEMS CONTRIBUTING TO THE LONGITUDINAL STRENGTH (TRANSVERSE SECTION)					
	DECK ZONE **(1)**	-	-	-	10
1	underdeck girder web underdeck girder flange	25 20	20 15	- -	- -
2	Upperdeck plating, deck stringer plates and sheer strakes	30	20	10	-
3	Deck longitudinals web flange	- 30 25	- 20 15	10 - -	- - -
	NEUTRAL AXIS ZONE **(1)**	-	-	-	15
4	Side shell plating	25	20	15	-
5	'Tweendeck hatch girder web flange	- 25 20	- 20 15	15 - -	- - -
6	'Tweendeck plating	30	20	15	-
7	'Tweendeck longitudinals web flange	- 30 25	- 20 15	15 - -	- - -
	BOTTOM ZONE **(1)**	-	-	-	10
8	Bilge and bottom strakes and keel plate	25	20	10	-
9	Bottom girders	25	20	10	-
10	Bilge and bottom longitudinals web flange	- 30 25	- 20 15	10 - -	- - -
11	Inner bottom plating	30	20	10	-
12	Inner bottom longitudinals web flange	- 30 25	- 20 15	10 - -	- - -
(1) Each zone is to be evaluated separately.					

Group of items	Description of items	1 Isolated area	2 Item	3 Group	4 Zone
	OTHER ITEMS				
13	Transverse bulkheads				
	plating	30	20	15	-
	stringer web	30	20	-	-
	stringer flange	25	15	-	-
	stiffener web	30	20	-	-
	stiffener flange	25	15	-	-
	brackets	30	20	-	-
14	Side frames				
	web	30	20	-	-
	flange	25	15	-	-
	brackets	30	20	-	-
15	Deck/'tweendeck frames				
	web	30	20	-	-
	flange	25	15	-	-
16	Floors				
	plating	30	20	-	-
17	Forward and aft peak bulkheads				
	plating	30	20	15	-
	stiffener web	30	20	-	-
	stiffener flange	25	15	-	-
(1) Each zone is to be evaluated separately.					

APPENDIX 6 CRITERIA FOR LONGITUDINAL STRENGTH OF THE HULL GIRDER

1 General

1.1

1.1.1 These criteria are to be used for the evaluation of longitudinal strength of the yacht's hull girder as required by Sec 2, [2.3.9].

In order for the evaluation of the yacht's longitudinal strength to be recognised as valid, fillet welding between longitudinal internal members and hull envelopes is to be in sound condition so as to keep integrity of longitudinal internal members with hull envelopes.

2 Calculation of transverse sectional areas of deck and bottom flanges of hull girder

2.1

2.1.1 The transverse sectional areas of deck zones and bottom zones (as defined in App 5, [4.3.4]) of the yacht's hull girder are to be calculated by using the thickness measured, renewed or reinforced, as appropriate, during the class renewal survey.

2.1.2 If the diminution of sectional areas of either deck or bottom zones exceeds 10% of their respective as-built area (i.e. original sectional area when the yacht was built), either of the following measures is to be taken:

a) renewal or reinforcement of the deck or bottom zones so that the actual sectional area is not less than 90% of the as-built area; or

b) calculation of the actual section moduli (Z_{act}) of the transverse section of the yacht's hull girder by applying the calculation method specified in [4], using the thickness measured, renewed or reinforced, as appropriate, during the class renewal survey.

3 Requirements for transverse section modulus of hull girder

3.1

3.1.1 The actual section moduli (Z_{act}) of the transverse section of the yacht's hull girder calculated in accordance with [2.1.2] b) above is not to be less than 90% of the required section modulus Z_R or $Z_{R,MIN}$ for new buildings specified in Pt B whichever is the greater, provided that in no case is Z_{act} less than the diminution limit of the minimum section modulus (Z_{MC}) as specified in [5].

4 Calculation criteria of section moduli of midship section of hull girder

4.1

4.1.1 When calculating the transverse section modulus of the yacht's hull girder, the sectional area of all continuous longitudinal strength members is to be taken into account.

4.1.2 Large openings, i.e. openings exceeding 2,5m in length or 1,2m in breadth and scallops, where scallop welding is applied, are always to be deducted from the sectional areas used in the section modulus calculation.

4.1.3 Smaller openings (manholes, lightening holes, single scallops in way of seams, etc.) need not be deducted provided that the sum of their breadths or shadow area breadths in one transverse section does not reduce the section modulus at deck or bottom by more than 3% and provided that the height of lightening holes, draining holes and single scallops in longitudinals or longitudinal girders does not exceed 25% of the web depth, for scallops of maximum 75mm.

4.1.4 A deduction-free sum of smaller opening breadths in one transverse section in the bottom or deck area of 0,06(B - Sb) (where B = breadth of yacht, Sb = total breadth of large openings) may be considered equivalent to the above reduction in section modulus.

4.1.5 The shadow area is to be obtained by drawing two tangent lines with an opening angle of 30°.

4.1.6 The deck modulus is related to the moulded deck line at side.

4.1.7 The bottom modulus is related to the base line.

4.1.8 The deck modulus is then to be calculated by dividing the moment of inertia by the following distance, provided this is greater than the distance to the deck line at side:

$$y_L = y(0,9 + 0,2x/B)$$

where:

y : distance from neutral axis to top of continuous strength member,

x : distance from top of continuous strength member to centreline of the yacht.

x and y to be measured to the point giving the largest value of y_t.

4.1.9 Longitudinal girders between multi-hatchways are to be considered by means of special calculations.

5 Diminution limit of minimum longitudinal strength of yacht in service

5.1

5.1.1 The diminution limit of the minimum section modulus Z_{mc}, in cm^3, of yachts in service is given by the following formula:

$$Z_{mc} = cL^2B(C_b + 0,7)k$$

where:

L : length of yachts. L is the distance, in meters, on the summer load waterline from the fore side of stem to the after side of the rudder post, or the centre of the rudder stock if there is no rudder post. L is not to be less than 96%, and need not be greater than 97%, of the extreme length on the summer load waterline. In yachts with unusual stern and bow arrangement the length L may be specially considered.

B : greatest moulded breadth in metres.

C_b : moulded block coefficient at draught d corresponding to summer load waterline, based on L and B. C_b is not to be taken less than 0.60, according to the formula:

$$C_b = \frac{\text{moulded displacement}(m^3)\text{at draught d}}{LBd}$$

c : 0,9 c_n (the value of C_n is given in Tab 1)

k : material factor, e.g:

k = 1 for mild steel with yield stress of 235N/mm^2 and over;

k = 0,78 for high tensile steel with yield stress of 315 N/mm^2 and over,

k = 0,72 for high tensile steel with yield stress of 355 N/mm^2 and over.

5.1.2 Scantlings of all continuous longitudinal members of the yacht's hull girder based on the section modulus requirement in [5.1.1] above are to be maintained within 0,4 L amidships. However, in special cases, based on consideration of the type of yacht, hull form and loading conditions, the scantlings may be gradually reduced towards the end of 0,4 L part, bearing in mind the desire not to inhibit the yacht's loading flexibility.

5.1.3 However, the above standard may not be applicable to yachts of unusual type or design, e.g. for yachts of unusual main proportions and/or weight distributions.

Table 1 : Values of C_n

	L < 90	90 ≤ L < 300	300 ≤ L ≤ 350	350 < L ≤ 500
C_n	$(1,18 - 0,36L) \cdot L/100$	$0,75 - [(300 - L)/100]^{1,5}$	1,0 75	$0,75 - [(L - 350)/150]^{1,5}$

APPENDIX 7 REMOTE SURVEYS

1 General

1.1 Application

1.1.1 This Appendix contains principles and requirements for carrying out remote surveys.

Remote survey will only be appropriate provided the level of assurance is not compromised, and the survey is carried out with the same effectiveness as and is equivalent to, a survey carried out with attendance on board by a Surveyor.

These requirements apply to all vessels, self-propelled or not. These requirements are not mandatory for offshore units.

1.2 Definitions

1.2.1 Remote Survey

A Remote Survey is a process of verifying that a yacht and its equipment are in compliance with the Rules where the verification is undertaken, or partially undertaken, without attendance on board by a Surveyor.

1.2.2 Information and Communication Technology (ICT)

Information and Communication Technology (ICT) are the technologies used in the scope of remote surveys for gathering, storing, retrieving, processing, analysing, and transmitting information which includes both software and hardware.

Note 1: 'Attendance on board by a surveyor' means physical attendance on board the yacht by a surveyor.

Note 2: Remote classification activities not requiring a survey, such as some administrative tasks, are not to be considered as remote surveys.

Note 3: An administrative task is a task where a survey decision is not being made, for example reissue of a certificate or record following a correction, or an update to the yacht's records held by the Classification Society or a document review.

2 Requirements for equivalency

2.1 General

2.1.1 The requirements for equivalency of a remote survey to a survey attended on board by a Surveyor include:

- eligibility of the remote survey
- qualification of Surveyors
- planning of the remote survey
- performance of the remote survey
- assessment of the remote survey
- reporting

Equivalency is obtained when, with the use of available ICT, a Surveyor can perform a survey remotely being able to:

- obtain the supporting and technical evidence required according to the applicable rules
- verify applicable survey items and relevant tests

and the results of the remote survey provide the same level of assurance obtained with attendance on board by a Surveyor.

2.2 Eligibility of the remote survey

2.2.1 Eligibility of the remote survey is to be decided based on type and scope of the requested survey, in accordance with [3.2] and, if applicable, flag State Administration acceptance and possible instructions, when the classification survey is also related to a statutory item, and the Society is carrying out the statutory survey on behalf of the flag State Administration.

A remote survey is deemed eligible when it provides the same level of assurance, according to the requirements for equivalency, as if it was conducted with attendance on board by a Surveyor.

Remote surveys are generally to be carried out with internet connection allowing a live streaming visual examination, although, at the discretion of the Surveyor, a combination of remote survey methods (see [2.5]) may be used. For simple/limited verifications, other types of ICT may be accepted by the Surveyor.

2.3 Qualification and monitoring of Surveyors

2.3.1 Qualification

Surveyors engaged in remote surveys are to be qualified as per standard procedures for the type of yacht and type of survey, i.e., in accordance with Tasneef training and qualification scheme.

Additional training is to be carried out, covering the ICT used for the remote survey, in relation to the applicable remote survey scope and methods, in order to fully qualify the Surveyor engaged in remote surveys.

The additional training required for qualification for remote surveys is to be in accordance with the Society's procedures and is to provide:

- knowledge of the operation of the Society's remote survey software, if applicable
- knowledge of the technical and procedural aspects related to remote surveys
- knowledge of the connectivity aspects related to remote surveys.

2.3.2 Monitoring

The monitoring of a Surveyor qualified for remote surveys is to be carried out in accordance with Tasneef standard procedure.

2.3.3 Surveyor's Record

Records of Surveyor's training and qualification for remote surveys are to be maintained and updated as per Tasneef standard procedures

Note 1: Society's personnel engaged in remote classification activities not requiring a survey (refer to [1.2]) are to be trained and qualified according to Tasneef's standard procedures.

2.3.4 On board personnel/Crew

Training and qualification of onboard personnel/Crew are regulated by the STCW Convention and is a prerogative of the flag State Administration.

The yacht's flag State Administration may require that the Safety Management System of the yacht is updated by the Company to include provisions for specific training of the crew engaged in remote surveys.

2.4 Planning of the remote survey

2.4.1 Planning of the remote survey is required to ensure that the remote survey is carried out in accordance with the applicable requirements. The content of the planning is to be based on the scope of the remote survey.

To ensure that the Surveyor can properly plan the remote survey and communicate with personnel/crew, so that the survey is carried out according to the applicable rules, adequate means are to be available enabling the Surveyor and allowing the Society to:

- properly interact with personnel/crew involved in the remote survey, before and during the survey process
- agree on ICT means to be used
- verify that personnel/crew involved in the remote survey are suitably skilled to use the electronic devices and/or software used by the Society to perform the remote survey
- acquire as deemed necessary information on identity and ranking of personnel/crew involved in the remote survey
- provide the survey item/scope to the personnel/crew involved in facilitating the remote surveys, including the tests that will be performed
- communicate, during the remote survey, additional actions depending on the evidence to be collected.

One or more of the following means is to be provided for planning the remote survey:

- live-streaming video and audio connection
- exchange of data / electronic documents
- other means acceptable to the Society

The Owner is to provide the necessary facilities for the safe execution of the survey.

2.5 Performance of the remote survey

2.5.1 To ensure that the Surveyor can properly perform the remote survey according to the applicable rules, the available evidence is to allow the attending Surveyor to:

- examine and assess a survey item and/or a group of items and/or supporting documents
- verify and assess applicable tests and/or services.

The evidence provided to the Surveyor is subject to the technical evaluation and final acceptance by the Surveyor with respect to the completeness and accuracy, necessary to perform the requested survey according to the applicable requirements.

One or more of the following evidence is to be provided for performing the remote survey:

- live-streaming video and audio
- recorded videos provided by the Owner's representative
- photos provided by the Owner's representative
- other data and/or supporting documents acceptable to the Society.

2.6 Assessment of the remote survey

2.6.1 The Surveyor is to evaluate all evidence received and accept them before crediting the remote survey.

The means used for the remote survey are to allow the Surveyor to collect the necessary evidence that will be examined according to the Surveyor's professional judgement in order to satisfactorily complete and credit the relevant survey items.

In case the Surveyor, according to their professional judgement, deems that the remote survey does not provide the same level of assurance as a survey with attendance on board by a Surveyor, the Surveyor may decide not to credit the relevant survey items.

3 Scope and procedures

3.1 General

3.1.1 A remote survey will be only appropriate provided it reaches the same level of assurance as, and is equivalent to, a survey attended on board by a Surveyor.

3.2 Scope - Eligible survey items

3.2.1 A remote survey may be proposed as an alternative to a survey attended on board by a Surveyor for the surveys listed in Tab 1.

When the classification survey is also related to a statutory item, and the Society is carrying out the statutory survey on behalf of the flag State Administration, then the flag State Administration acceptance is required, and possible additional requirements are to be complied with.

The Surveyor may require to confirm the results of the remote survey, by a survey attended on board by a Surveyor, to credit the relevant survey items, in case the remote survey is not carried out to the Surveyor's satisfaction or it is required by the Society.

Table 1 : Eligible remote survey items

No.	Surveys and related items eligible to remote survey	Live streaming required (See Notes)
1	Postponement, issuance, deletion of Condition of Class	X (1)
2	Postponement of Class surveys	X (1)
3	Items of Continuous Survey for Machinery (ref to Sec 2, [4.3]) or Planned Maintenance Scheme (PMS) (ref to Sec 2, [4.4] and Pt F, Ch 12, Sec 1)	X (1)
4	Occasional survey for change of yacht's name	X (1)
5	Occasional survey for loss of anchor	X (1)
6	Occasional survey for minor machinery or equipment damage	X (1)
7	Occasional survey for minor hull damage	X (1)
8	Occasional survey for minor deficiencies/defects not subject to a Condition of Class	X (1)
9	In-water bottom survey	X
10	Specified items of a class periodical survey (excluding additional specific items of initial or renewal surveys), including completion of remaining items of a part held class periodical survey	X (1)(2)
11	Non-propelled / un-manned barges/pontoon – annual surveys when no survey of hull compartments is due	X
12	Minor retrofit / installation/upgrade of equipment	X (1)
13	Documentary or data based initial / periodical / renewal / occasional verifications and surveys	

Notes:

(1) "(1)" means that live streaming may not be required for minor survey scope or that a combination remote survey method, as listed in [2.5], may be used at the sole discretion of the Society.

(2) "(2)" means that pure documentary verifications are eligible in accordance with item 13.

(3) Live streaming may be required for surveys not marked X in this Table, depending on the survey scope at the sole discretion of the Society.

(4) "Minor" in the items 6, 7, 8 and 12 means that the item can be surveyed remotely according to requirements for equivalency given in [2]

3.3 Procedures

3.3.1 Eligibility

Refer to [2.2].

3.3.2 Digital information quality, completeness, and accuracy

Final appraisal of the quality of digital information is at the discretion of the Surveyor, who is to be satisfied with the content and the quality of digital information collected, and the survey carried out, allowing the Surveyor to confirm its completion.

The Owner is responsible for the completeness and accuracy of digital information provided. The digital information submitted by the Owner to the Surveyor is to reflect the real situation of the surveyed item. The date and time, when a photo or video was taken are to be made available to the Surveyor or identifiable from its metadata.

The Society is to collect and store digital information as evidence of the survey. It is not necessary to store all of digital information received; the exact digital information stored is to support the survey decision and is to be decided by the Surveyor crediting the survey.

The remote survey is carried out under the supervision and upon instructions of the Surveyor, who is in charge of crediting the remote surveys. A Surveyor attendance on board may be required to complete the survey, upon the Surveyor's request and at his discretion.

3.3.3 Requirements for a remote survey when live streaming is not used

When live streaming is not used, communication and digital information collection are to be performed through an ICT channels (such as emails, data streams and clouds), which is to be accepted by the Society prior to the survey.

The Owner's representative is to confirm the identity of the yacht at the commencement of the survey.

3.3.4 Requirements for a remote survey when live streaming is used

The Owner's is to ensure that:

- the Owner's representative is attending onboard and has access to the areas intended to be surveyed
- the Owner's representative has at his disposal a 2-ways visual and audible communication means complying with the requirements in [4]
- ICT solution is available on the communication means and meets the requirement described in [4]

In the case these requirements cannot be fulfilled, the remote survey may be rejected. The Surveyor is to verify the identity of the yacht at the commencement of the survey by live streaming.

3.4 Hardware and ICT solution

3.4.1 General

Refer to [4.2].

3.5 Requirements for Connectivity

3.5.1 General

The Owner's representative is to ensure that internet connectivity tests are carried out before the survey and that proper connectivity is available and maintained during the survey.

When remote survey by live streaming is being undertaken, a connection that enables live streaming between the Surveyor and the Owner's representative attending on board is required. The quality of the live streaming connection (audio and video) is to ensure proper communication and to allow the Surveyor to carry out the survey remotely, to the Surveyor's satisfaction. In the case where a live streaming connection with the Surveyor is not possible or is not continuous at the place of the survey (e.g., Engine Room), partly online sequences (where the Owner is able to capture pictures and videos offline of those items not covered by live streaming) may be accepted by the Surveyor.

4 Information and Communication Technology (ICT)

4.1 General

4.1.1 This Article outlines the minimum requirements for the use of ICT that can capture images, record video and/or live stream video or other data from a yacht as considered acceptable to the Society.

4.2 Hardware

4.2.1 The Owner is responsible for ensuring that all hardware installations on board used for the remote survey are to comply with the applicable requirements relevant for use and location on board, including hazardous areas. The ICT is to typically consist of:

- A host computer device, to receive the streaming of images/data/video. This is usually a laptop or desktop computer compatible with the software application used for the remote survey
- On board standalone device which may include digital cameras capable of capturing videos/photos/data
- On board smart device compatible with the applicable software/technology
- Communication accessories like headphones and microphone for the noisy environment as applicable and as deemed necessary

Note 1: The smart device may be a smartphone, tablet, computer, wearable device, smart glass, digital camera, or any other device which can be connected to the network and capable of transmitting the necessary data/images to shore.

The communication equipment used for the live streaming is to have the following minimum functionality:

- both ends shall simultaneously see the same image/videos in near real-time (i.e., live streaming)
- two-way direct voice communication
- possibility to take screenshots

When using a portable device on board for live streaming, the movement of the handheld device may affect the stability of the video and the image, leading to lower quality outputs. When necessary, a suitable anti-shake device is to be used to provide proper stability.

Note 2:

1) The host computer screen is to be able to present an image quality that is sufficient to enable a survey decision to be made
2) Portable equipment on board shall be equipped with a power capacity suitable for the intended scope and time of the survey

4.3 Internet Connectivity (coverage and speed)

4.3.1 For internet connectivity requirements on board, refer to [3.5].

The onboard smart devices are to have the capability of transmitting the images/video/data over a Cellular, Wi-Fi or Satellite Connection to the remote Surveyor.

When live streaming communication is applied, the internet connection is to have sufficient and stable bandwidth capacity to ensure quality (such as resolution and frame rate) of the direct colour image/video and voice communication to the remote survey location to the satisfaction of the Surveyor.

4.4 Software and data security

4.4.1 The software used for the remote survey is to be acceptable to the Society. The overall function and ability of the software used to ensure the security of data is to be evaluated prior to use as per the below requirements.

The Surveyor is to normally control the live video call, providing instructions to the on-site personnel/crew and supervising survey activities for capturing relevant information. The onboard device is to have the capability of transmitting the data over a Cellular, Wi-Fi, or Satellite Connection to the Surveyor.

The software used to perform the remote survey may also be provided with technologies that support the Surveyor in the process of making a decision, such as:

- Artificial Intelligence (AI) for the recognition and the classification of defects
- Internet of things (IoT) for collecting parameters and evaluating acceptability/working condition of machinery and equipment
- Data driven verification or other means considered acceptable by the Society.

The above software and technologies are to be evaluated and accepted by the Society in each case.

When considering the use of software/applications and other technologies, data protection is to be considered in accordance with applicable requirements of the Society before the remote survey is commenced. The software/application used to perform the remote survey is to be compatible with the technical requirements detailed in this paragraph; in addition, the software used is to comply with the Society's applicable requirements for:

- cybersecurity
- data protection and confidentiality for the transmitted data

When not provided by the Society itself, the audio/video software or application used to perform the remote survey is to be accepted by the Society.

During the survey preparation, it is the Owner's responsibility to ensure that their data security policies are implemented as per the Company's Safety Management System.

Note 1: The Company's SMS may take into account IMO resolution MSC.428(98), MSC-FAL.1/Circ.3 and IACS Rec.166.

5 Recording of evidence and reporting of survey

5.1 Recording of Evidence

5.1.1 Required evidence (refer to [2.5])

In principle, live streaming video and audio are to be applied to remote surveys as a primary means (refer to Tab 1).

Additionally, and/or alternatively, one or more of the following evidence may be submitted or verified as requested by the Surveyor during remote survey so that the Surveyor is able to verify conditions of survey items:

- Recorded video and audio
- Photos
- Master's/chief engineer's statement
- Yacht's logbook
- Owner's confirmation

a) Live streaming video and audio
   Live streaming video and audio using ICT is to be in accordance with the requirements in [4].
b) Recorded videos/photos

For the recorded videos/photos, the following information is to be available:

- confirmation that they were actually taken on the yacht by the Owner’s representative
- date and time when they were taken
- identity of the personnel/crew responsible for taking evidence

c) Master's/chief engineer's statement

Recorded videos/photos provided by the Owner’s representative may be supplemented with a statement signed by the master and/or the chief engineer confirming the condition of the items shown in the evidence. The final evaluation of the remote survey by the Surveyor is to be based on all of the provided evidence, and it does not delegate the responsibility to the master/chief engineer’s statement only.

d) Yacht's logbook

The Master is to make entries into yacht's logbook on the following occasions and submit copies of the relevant pages when requested by the Surveyor:

- when a remote survey is carried out by the Surveyor
- when videos/photos are taken and submitted to the Surveyor with the master's/chief engineer's statement and additional documents as applicable.

e) Owner’s confirmation

The Owner’s representative or the master is to confirm the correctness and completeness of the provided information and evidence (if any) relevant to the condition of the items requested to be surveyed. This confirmation may be included in the survey application.

5.1.2 Retaining/filing evidence

The evidence submitted by the Owner’s representative or master is to be retained/filed in accordance with the Society's procedures which are to include:

- type of evidence to be retained/filed
- duration/location to be retained/filed

It is not required for the Society to record and save live streaming video and audio as evidence unless the Surveyor considers it necessary.

5.1.3 Other supporting documents

The Surveyor may request the Owner’s representative or master to submit supplementary documents such as yacht's maintenance reports and record for the operation of machinery, and equipment and service reports issued by manufacturers, service suppliers or service providers.

While the Surveyor is to verify that the documents are duly prepared and issued to the yacht, they may not be required to be retained/filed by the Society as evidence.

5.2 Reporting of remote survey

5.2.1 The report of a remote survey is to be issued in accordance with the Society's procedure. The survey report is to also include the following additional information:

- indication that the survey was carried out remotely
- description of the means used during the remote survey
- indication of the provided evidence
- confirmation of the flag State Administration’s authorization, when applicable.

Chapter 3
SCOPE OF SURVEYS

SECTION 1 SURVEY FOR NEW CONSTRUCTION

1 Hull

1.1 General

1.1.1 Scope

The scope of this Article [1] includes the following main activities:

a) Examination of the parts of the yacht covered by classification Rules and by applicable statutory regulations for hull construction, to obtain appropriate evidence that they have been built in compliance with the Rules and regulations, taking account of the relevant approved drawings.

b) Appraisal of the manufacturing, construction, control and qualification procedures, including welding consumables, weld procedures, weld connections and assemblies, with indication of relevant approval tests.

c) Witnessing inspections and tests as required in the classification Rules used for yacht construction including materials, welding and assembling, with specification of the items to be examined and/or tested, the methods (e.g. by hydrostatic, hose or leak testing, non-destructive examination, verification of geometry) and who is to carry out such inspections and tests.

Appraisal of materials and equipment used for yacht construction and their inspection at works is not included in this Article [1]. Details of requirements for hull and machinery steel forgings and castings and for normal and higher strength hull structural steel are given in Pt D, Ch 2, Sec 3, Pt D, Ch 2, Sec 4 and Pt D, Ch 2, Sec 1, [2] respectively. Acceptance of these items is verified through the survey process carried out at the Manufacturer's works and the issuing of the appropriate certificates.

1.2 Definitions

1.2.1 Hull structure

The hull structure (see Note 1) is defined as follows:

a) hull envelope including all internal and external structures,

b) superstructures, deckhouses and casings,

c) welded foundations, e.g. main engine seatings,

d) hatch coamings, bulwarks,

e) all penetrations fitted and welded into bulkheads, decks and shell,

f) the fittings of all connections to decks, bulkheads and shell, such as air pipes and yacht side valves - all items of ILLC 1966, as amended, as recalled by the Statutory Requirements, if any,

g) welded attachments to shell, decks and primary members, e.g. crane pedestals, bitts and bollards, but only as regards their interaction on the hull structure.

Note 1: A glossary of hull terms and hull survey terms can be found in IACS Recommendation 82.

1.2.2 Documents

Reference to documents also includes electronic transmission or storage.

1.2.3 Survey methods

The survey methods which the Surveyor is directly involved in are as follows:

a) Patrol is defined as the act of checking on an independent and unscheduled basis that the applicable processes, activities and associated documentation of the shipbuilding functions identified in Tab 1 of Pt A, Ch 3, Sec 1 of Tasneef Rules for the Classification of Ships (see [1.3]) continue to conform to classification and statutory requirements.

b) Review is defined as the act of examining documents in order to determine traceability and identification, and to confirm that processes continue to conform to classification and statutory requirements.

c) Witness is defined as the attendance at scheduled inspections in accordance with the agreed Inspection and Test Plans to the extent necessary to check compliance with the survey requirements.

1.3 Application

1.3.1 Classification items

This Article [1] covers the classification surveys of all new construction of yachts intended for international voy-ages.

For yachts other than steel this procedure is to be applied as far as practicable and applicable. Tab 1 is reported in Pt A, Ch 3, Sec 1 of Tasneef Rules for the Classification of Ships and it has to be applied taking into consideration the hull material and the applicable Statutory requirements.

1.3.2 Statutory items

This Article [1] covers all delegated statutory items relevant to the hull structure and coating.

1.3.3 Equipment, fittings and appendages

This Article [1] does not cover the manufacture of equipment, fittings and appendages regardless of whether they are made inside or outside the shipyard, examples being as follows:

a) hatch covers,

b) doors and ramps integral with the shell and bulkheads,

c) rudders and rudder stock,

d) all forgings and castings integral to the hull.

Evidence of acceptance is to be provided by accompanying documentation from the Surveyor at the Manufacturer's and verified at the shipyard.

1.3.4 Installation, welding and testing

This Article [1] applies to the installation in the yacht, welding and testing of:

a) the items listed in [1.3.3] above

b) equipment forming part of the watertight and weathertight integrity of the yacht.

1.3.5 Location of construction

This Article [1] applies to the hull structures and coating constructed:

a) at the shipbuilder's facilities,

b) by subcontractors at the shipbuilder's facilities,

c) by subcontractors at their own facilities or at other remote locations.

1.4 Personnel

1.4.1 Qualification and monitoring of exclusive Surveyors

The Soceity's Surveyors are to confirm through patrol, review and witness, as defined in [1.2.3], that yachts are built using approved plans in accordance with the relevant Rules and statutory requirements. The Surveyors are to be qualified to be able to carry out their tasks, and procedures are to be in place to ensure that their activities are monitored.

1.5 Survey of the hull structure

1.5.1 Surveyable items

Tab 1 provides a list of surveyable items for the hull structure and coating covered by this Article [1], including:

a) description of the shipbuilding functions;

b) classification and statutory survey requirements;

c) survey method required for classification;

d) relevant Society Rule and statutory requirement references;

e) documentation to be available for the Surveyor during construction. The shipbuilder is to provide the Surveyors with access to documentation required by the Society; this includes documentation retained by the shipbuilder or other third parties. The list of documents approved or reviewed by the Society for the specific new construction is as follows:

   1) plans and supporting documents,

   2) examination and testing plans,

   3) NDE plans,

   4) welding consumable details,

5) welding procedure specifications,
6) welding plan or details,
7) welders' qualification records,
8) NDE operators' qualification records;

f) documents to be inserted into the yacht construction file. Refer to [1.10] for details;

g) a list of specific activities which are relevant to the shipbuilding functions. This list is not exhaustive and can be modified to reflect the construction facilities or specific yacht type.

1.5.2 Materials and equipment supplied

During the construction process as required, evidence is also to be made available by the shipbuilder to the Surveyor to prove that the materials and equipment supplied to the yacht have been built or manufactured under survey relevant to the classification Rules and statutory requirements.

Evidence that no material containing asbestos has been installed on board is to be provided to the Surveyor.

1.6 Review of the shipyard

1.6.1 Review of the construction facilities

Tasneef is to familiarize itself with the yard's production facilities, management processes and safety for consideration in terms of compliance with the requirements of Tab 1 of Tasneef Rule for the Classification of Ships (see Note 1) prior to any steelwork or construction taking place in the following circumstances:

a) where Tasneef has no, or no recent, experience of the construction facilities - typically after a one year lapse - or when significant new infrastructure has been added,

b) where there has been significant management or personnel restructuring having an impact on the yacht construction process, or

c) where the shipbuilder contracts to construct a yacht of a different type or substantially different in design.

Note 1: Reference is made to [1.11] - Shipyard review record, as an example.

1.7 Newbuilding survey planning

1.7.1 Kick-off meeting

Prior to commencement of surveys for any newbuilding project, the Society is to discuss with the shipbuilder at a kick-off meeting the items listed in Tab 1 of Pt A, Ch 3, Sec 1 of Tasneef Rules for the Classification of Ships as far as applicable. The purpose of the meeting is to review and agree how the list of specific activities shown in Tab 1 of Pt A, Ch 3, Sec 1 of Tasneef Rules for the Classification of Ships as far as applicable is to be addressed. The meeting is to take into account the shipbuilder's construction facilities and yacht type, including the list of proposed sub-contractors. A record of the meeting is to be made, based on the contents of Tab 1 of Pt A, Ch 3, Sec 1 of Tasneef Rules for the Classification of Ships as far as applicable. Tab 1 of Pt A, Ch 3, Sec 1 of Tasneef Rules for the Classification of Ships as far as applicable itself can be used as the record with comments made in the appropriate column. If the Society has appointed a Surveyor for a specific newbuilding project then this Surveyor is to attend the kick-off meeting. The builder asked to should agree to undertake ad hoc investigations during construction where areas of concern arise and to keep the Society advised of the progress of any such investigation. Whenever an investigation is undertaken, the builder is to be requested, in principle, to agree to suspend relevant construction activities if warranted by the severity of the problem.

1.7.2 Delegated statutory requirements

The records are to take note of specific published Administration requirements and interpretations of delegated statutory requirements.

1.7.3 Construction progress records

The shipyard shall be requested to advise of any changes to the activities agreed at the kick-off meeting and these are to be documented in the survey plan. For instance, if the shipbuilder chooses to use or change subcontractors, or to incorporate any modifications necessitated by changes in production or inspection methods, rules and regulations, structural modifications, or in the event where increased inspection requirements are deemed necessary as a result of a substantial non-conformance or otherwise.

1.7.4 Fabrication quality standard

Shipbuilding quality standards for the hull structure during new construction are to be reviewed and agreed during the kick-off meeting. Structural fabrication is to be carried out in accordance with IACS Recommendation 47, "Shipbuilding

and Repair Quality Standard", or a Recognised Fabrication Standard (RFS) which has been accepted by the Society prior to the commencement of fabrication/construction. The work is to be carried out in accordance with the Rules and under survey of Tasneef.

1.7.5 Special cases of kick-off meeting

In the event of series yacht production, production (see Note 1), the requirement for a kick off meeting in [1.7.1] may be waived for the second and subsequent yachts provided that no changes to the specific activities agreed in the kick off meeting for the first yacht are introduced. If any changes are introduced, these are to be agreed in a new dedicated meeting and documented in a record of such meeting.

Note 1: Series Yacht Production: vessels in the series subsequent to the first one (prototype), i.e. sister yachts built in the same shipyard.

1.7.6 Other attendees at the kick-off meeting

In the event of series yacht production, production (see Note 1), the requirement for a kick off meeting [1.7.1] may be waived for the second and subsequent yachts provided that no changes to the specific activities agreed in the kick off meeting for the first yacht are introduced. If any changes are introduced, these are to be agreed in a new dedicated meeting and documented in a record of such meeting.

Note 1: Series Yacht Production: vessels in the series subsequent to the first one (prototype), i.e. sister yacht built in the same shipyard.

1.8 Examination and test plan for newbuilding activities

1.8.1 Plans to be provided

The shipbuilder is to provide plans of the items which are intended to be examined and tested. These plans need not be submitted for approval and examination at the time of the kick-off meeting. They are to include:

a) proposals for the examination of completed steelwork - generally referred to as the block plan and including details of joining blocks together at the pre-erection and erection stages or at other relevant stages;

b) proposals for fit-up examinations where necessary;

c) proposals for testing of the structure (leak and hydrostatic) as well as for all watertight and weathertight closing appliances;

d) proposals for non-destructive examination;

e) any other proposals specific to the yacht type or to the statutory requirements.

1.8.2 Submittal of plans to the Surveyors

The plans and any modifications to them are to be submitted to the Surveyors in sufficient time to allow review before the relevant survey activity commences.

1.9 Proof of the consistency of surveys

1.9.1 Evidence for survey planning and activities

Inspection and test records, checklists etc are to be kept in order to provide evidence that Tasneef's Surveyors have complied with the requirements of the new building survey planning and duly participated in the relevant activities shown in the shipbuilder's examination and test plans.

1.9.2 Recording of patrolling activities

In addition, the classification society is to maintain records of deficiencies found during the patrolling activities required in Table 1 and described in paragraph [1.2.3].

Records shall include the date when deficiency was found, description of the deficiency and the date the deficiency was cleared.

1.10 Yacht Construction File

1.10.1 Document provider

The shipbuilder is to deliver documents for the Yacht Construction File. In the event that items have been pro-vided by another Party such as the Shipowner, and where separate arrangements have been made for docu-ment delivery excluding the shipbuilder, that Party has the responsibility. The Yacht Construction File is to be re-viewed for content in accordance with the requirements of [1.10.2].

Note 1: When the info required in [1.10.2] are at the disposal of the Interested parties in a different form than the Yacht Construction File it may not be required by Tasneef.

1.10.2 Contents of the yacht Construction File

It is recognized that the purpose of documents held in the Yacht Construction File on board the yacht is to facilitate surveys and repairs and maintenance, and, therefore, in addition to those listed in Tab 1 of Pt A, Ch 3, Sec 1 of Tasneef Rules for the Classification of Ships as far as it's practicable and applicable, such documents are to include, but not be limited to, the following:

a) as-built structural drawings including scantling details, material details and, as applicable, wastage allowances, location of butts and seams, cross-section details and locations of all partial and full penetration welds, areas identified for close attention and rudders;

b) manuals required for classification and statutory requirements, e.g. loading and stability, bow doors, inner doors, side shell doors and stern doors - operations and maintenance manuals;

c) yacht structure access manual, as applicable;

d) copies of certificates of forgings and castings welded into the hull;

e) details of equipment forming part of the watertight and weathertight integrity of the yacht;

f) a Cable Transit Seal Systems Register (Register), to be prepared by the shipbuilder for watertight cable transits. The Register can be in either a hard copy or digitized media. It is to include a marking / identification system, documentation referencing manufacturer manual(s) for each type of cable transit installed, the Type Ap-proval certification for each type of transit system, applicable installation drawings, and a recording of each installed transit documenting the as built condition after final inspection in the shipyard. This is to include sections to record any inspection, modification, repair and maintenance. The Register is to be readly available for the attending surveyor.

g) tank testing plan including details of the test requirements;

h) corrosion protection specifications;

i) details for the in-water survey, if applicable, information for divers, clearance measurement instructions etc, tank and compartment boundaries;

j) docking plan and details of all penetrations normally examined at dry-docking;

k) Coating Technical File, for yachts subject to compliance with the IMO Performance Standard for Protective Coatings (PSPC), as a class requirement under the IACS Common Structural Rules.

Figure 1 : Recommendatory Sample - Cable Transit Seal Systems Register

Name of Ship: Sample
IMO No: 12345
Place: Hamburg
Date: XX/XX/2017

Inspected by: Smith

Transits 4
Total Openings 4

TRANSIT																		
Drawing number	ID	Location	Inspected side		BRAND	FRAME		Type Approved	CONDITION(G,F,P)	INSPECTED	REPAIRED	MODIFIED	MAINTAINED	NOTES:	Checked by	DATE
			F	B		Type	Opening number									
GIA-07-1047-000-883	TT-MCT-011				C	d= 50	x							NVD	PTO	26/02/2015
GIA-07-1047-000-883	TT-MCT-012				C	450x200	x							NVD	PTO	26/02/2015
GIA-07-1047-000-883	TT-MCT-013				C	550x200	x							NVD	PTO	26/02/2015
GIA-07-1047-000-883	TT-MCT-014				C	750x200	x							Open, drilled hole not closed	PTO	26/02/2015

C = Compound (not known brand)
R = Smith Blocks
B = MCT Williams
H = Heavy corrosion
N= Nelson, Terasaki
MB=Mixed brands
MM=Mixed module sizes
NVD=No Visible Defects
CPA=Checkpoints rectangular frames
CPB=Checkpoints round frames

1.11 Shipyard review record

1.11.1 Contents of the shipyard review record

The shipyard review record is to contain the following information, for which Tasneef form "Shipyard review record" is to be filled in as appropriate:

a) name and location of shipyard
b) details of any management systems
c) construction facilities
d) shipyard control of qualified welders
e) features of construction procedure
f) quality control system
g) measures for safety and health
h) control system of non-destructive examination (NDE)
i) quality control on production line.

2 Machinery and systems

2.1 General

2.1.1 Scope

The scope of this article [2] includes the following main activities:

a) Examination of the parts of the yacht covered by classification Rules and by applicable delegated statutory regulations for machinery construction, to obtain appropriate evidence that they have been built in compliance with the Rules and regulations, taking account of the relevant approved drawings.
b) Appraisal of the manufacturing, construction, control and qualification procedures, including welding consumables, weld procedures, weld connections and assemblies, with indication of relevant approval tests (e.g for piping systems).
c) Witnessing inspections and tests as required in the classification Rules for machinery and systems including materials, welding and assembly, the inspection and testing methods (e.g. by hydrostatic, leak testing, non-destructive examination, verification of geometry) and by whom.

Appraisal of materials and equipment used for machinery and systems and their inspection at works is not included in this article [2] . Details of requirements for machinery and systems and equipment are given in:

- Part C, Chapter 1 for machinery equipment and piping systems,
- Part C, Chapter 2 for electrical systems,
- Part C, Chapter 3 for automation systems,
- Part D for materials and welding,
- Part B for anchoring and mooring system,
- Part E requirements for the specific Service Notations Pleasure,
- Part F requirements for the Additional Class Notations.

2.2 Definitions

2.2.1 Machinery

The Machinery components are generally defined as follows:

a) Main and auxiliary engines, turbines and boilers
b) Reduction gears, main thrust, intermediate shafts, tailshafts and propellers
c) Main and auxiliary systems for steering
d) Pumps and other machinery items
e) Systems in machinery spaces and in cargo areas
f) Electrical equipment and installations
g) Fire protection, detection and extinction (limited to the items covered by Classification,
h) Automation systems
i) Machinery system for mooring and anchoring

j) Machinery systems required by specific Service Notation Pleasure

k) Machinery systems required by specific Additional Class Notations.

2.2.2 Documents

Reference to documents also includes electronic transmission or storage.

2.2.3 Survey methods

The survey methods involving the Surveyor directly are as follows:

a) Patrol is defined as the act of checking on an independent and unscheduled basis that the applicable processes, activities and associated documentation of the shipbuilding functions continue to conform to classification and delegated statutory requirements.

b) Review is defined as the act of examining documents in order to determine traceability and identification, and to confirm that processes continue to conform to classification and delegated statutory requirements.

c) Witness is defined as the attendance at scheduled inspections and tests in accordance with the agreed Inspection and Test Plans or equivalent to the extent necessary to check compliance with the survey requirements.

2.3 Application

2.3.1 Classification items

This Article [2] covers the survey of all new construction of yachts intended for classification.

For yachts other than steel this procedure is to be applied as far as practicable and applicable.

2.3.2 Delegated statutory items

This Article [2] covers all delegated statutory items relevant to the machinery items.

2.3.3 Location of construction

This Article [2] applies to the machinery items, as defined in [2.2.1] whether constructed and/or installed:

a) at the shipbuilder's facilities

b) by subcontractors/suppliers at the shipbuilder's facilities

c) by subcontractors/suppliers at their own facilities or at other remote locations

d) by machinery item manufacturers at the shipbuilder's facilities

e) by machinery item manufacturers at their own facilities or at other remote locations.

2.4 Personnel

2.4.1 Qualification and monitoring of exclusive Surveyors

Tasneef's Surveyors are to confirm through patrol, review and witness, as defined in [2.2.3], that machinery items are built and installed using approved plans in accordance with the relevant Rules and delegated statutory requirements. The Surveyors are to be qualified to be able to carry out their tasks, and procedures are to be in place to ensure that their activities are monitored.

2.5 Survey of Machinery installations

2.5.1 Surveyable items

The items of machinery to undergo survey during their:

a) construction/manufacturing

b) installation on board the new yacht are those covered by the pertinent Parts of the Rules, as defined in [2.1.1], and delegated statutory requirements.

2.5.2 Materials and equipment supplied

During the construction and installation processes as required, evidence is also to be made available by the shipbuilder to the Surveyor to prove that the materials and equipment supplied to the yacht have been built or manufactured under survey relevant to the classification Rules and delegated statutory requirements.

2.6 Newbuilding survey planning

2.6.1 Kick-off meeting

Prior to commencement of surveys for any machinery installation, Tasneef is to discuss with the shipbuilder at a kick-off meeting referred to in [1.7.1] the items related to the building and/or installation activities of machinery as per item [2.2.1] as applicable. The purpose of the meeting is to agree on how the list of specific activities is to be addressed. The meeting is to take into account the shipbuilder's construction facilities and yacht type, including the list of proposed manufacturers, subcontractors and suppliers. A record of the meeting is to be made. If Tasneef has appointed a Surveyor for a specific new building project or for the task of machinery installation surveillance, then this Surveyor is to attend the kick-off meeting. The shipbuilder is to be asked to agree to undertake ad hoc investigations during construction where areas of concern arise and to keep Tasneef advised of the progress of any such investigation. Whenever an investigation is undertaken, the builder is to be requested, in principle, to agree to suspend relevant construction activities if warranted by the severity of the problem.

2.6.2 Delegated statutory requirements

The records are to take note of specific published Administration requirements and interpretations of delegated statutory requirements.

2.6.3 Construction progress records

The shipyard shall be requested to advise of any changes to the activities agreed at the kick-off meeting and these are to be documented. For instance, if the shipbuilder chooses to use or change manufacturers of ma-chinery items, subcontractors for machinery items, supplier of machinery items, or to incorporate any modifi-cations necessitated by changes in production, in inspection methods, in rules and regulations, in structural modifications, or in the event where increased inspection requirements are deemed necessary as a result of a substantial non-conformance, or otherwise.

2.6.4 Fabrication quality standard

The quality standard of shipbuilding, manufacturers of machinery items, subcontractors for machinery items, supplier of machinery items, for the machinery installations during new constructions are to be reviewed and agreed during the kick-off meeting. Machinery items should be manufactured and installed according to applicable IACS Recommendations, or a recognized fabrication standard which has been accepted by the Society prior to the commencement of fabrication/construction. The work is to be carried out in accordance with the Rules and under survey of the Society.

2.6.5 Other attendees at the kick-off meeting

The kick-off meeting may be attended by other parties, such as the Owner or Administrations, subject to agreement by the shipbuilder.

2.6.6 Special cases of kick-off meeting

In the event of series yacht production, consideration may be given to waiving the requirement for a kick-off meeting for the second and subsequent yachts provided any changes are documented as required in [2.6.1] and in [2.6.3].

2.7 Examination and test plan for newbuilding activities

2.7.1 Plans to be provided

The shipbuilder is to provide plans of the items which are intended to be examined and tested. These plans need not be submitted for approval and examination at the time of the kick-off meeting. They are to include:

a) list of machinery components to be fitted on board including the machinery arrangement plans, comprehensive of:
   1) proposals for the examination of piping steelwork, including booklets of typical arrangements, completed with the list of the materials and fittings;
   2) proposals for the examination of electric systems fittings, including booklets of typical arrangements, completed with the list of the materials and devices;
   3) proposal for the examination of propulsion system(s) arrangement and associated fittings ;
   4) proposal for the examination of steering system(s) arrangement and associated fittings;
   5) proposal for the examination of the machinery systems arrangement, as referred in Pt C, Ch 1, Sec 10, and associated fittings
   6) proposal for the examination of automation system(s) arrangement and associated fittings (if any);
   7) proposal for the examination of anchoring and mooring arrangements and associated fittings,

8) proposal for the examination of Additional class Notation machinery systems arrangement and associated fittings (if any);

b) proposal for non destructive examination of piping steelwork, and in general for all systems requiring welding for their manufacture or installation ;

c) proposals for testing of machinery components after their manufacture or installation on board;

d) any other proposals specific to the yacht type or to the delegated statutory requirements.

2.7.2 Submittal of plans to the Surveyors

The plans and any modifications to them are to be submitted to the Surveyors in sufficient time to allow review before the relevant survey activity commences.

2.8 Proof of the consistency of surveys

2.8.1 Evidence for survey planning and activities

Inspection and test records, checklists etc are to be kept in order to provide evidence that the Society's Surveyors have complied with the requirements of the newbuilding survey planning and duly participated in the relevant activities shown in the shipbuilder's examination and test plans.

2.9 Inspection and tests of machinery components

2.9.1 Inspection and tests at workshop

Inspection and testing of machinery components, at the workshop, shall be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations.

2.9.2 Inspection and tests at dock and sea trials

Inspection and testing of machinery components during sea trials are to be carried out according to the provisions of the applicable classification Rules and delegated statutory regulations. The following Parts of the Rules are applicable:

a) main propulsion systems, including but not limited to propeller shafting line: Pt C, Ch 1, Sec 16

b) auxiliary systems for propulsion and other services systems: Pt C, Ch 1, Sec 16

c) main and auxiliary systems for steering: Pt C, Ch 1, Sec 16

d) main and auxiliary piping systems: Pt C, Ch 1, Sec 16 and Pt C, Ch 1, Sec 10

e) main, emergency and auxiliary electrical system for primary, secondary and emergency systems: Pt C, Ch 2, Sec 6

f) automation systems: Pt C, Ch 3, Sec 5 and Pt C, Ch 3, Sec 6

g) machinery system for mooring and anchoring (if any): Pt B, Ch 1, Sec 3

h) machinery systems required for specific Service Notations: Part E

i) machinery systems required for specific Additional Class Notations: Part F.

3 Assignment of double or dual class for New Construction

3.1 Assignment of double class for New Construction

3.1.1 Whenever it is requested by the Shipyard/Owner to survey a new building under double class provisions of [1] and [2] apply.

3.2 Assignment of dual class for New Construction

3.2.1 Whenever it is requested by the Shipyard/Owner to survey a new building under dual class:

a) review and approval of plans, as appropriate, for the newbuilding are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1];

b) in application of the requirement of [1] and [2], survey during fabrication, construction and testing of the vessel are to be performed in accordance with the trilateral agreement referred to in Ch 2, Sec 1, [2.5.1], and/or the bilateral agreement adopted by the two Societies, if any, clearly defining the scope of work of each Society.

SECTION 2 SURVEY FOR ASSIGNMENT OF CLASS OF A YACHT IN SERVICE

1 Surveys required by IACS Procedural Requirement PR1A

1.1 Transfer to the Society's class of a yacht in service classed by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions

1.1.1 General

Surveys for assignment of class may be credited as periodical surveys for maintenance of class, provided that the losing Society is a QSCS Classification Society as defined in Ch 2, Sec 1, [1.1.1]. In this case, all conditions of class due for compliance at that periodical survey are to be complied with.

1.1.2 Surveys

Notwithstanding the records indicating that all surveys are up-to-date, a survey for assignment of class is held by the Society, the extent of which is based on the age of the yacht and the losing Society's class status as follows:

a) Hull:

1) for yachts less than 5 years of age the survey takes the form of an annual survey;

2) for yachts between 5 and 10 years of age the survey includes an Annual Survey and inspection of a representative number of ballast spaces;

3) for yachts of 10 years of age and above but less than 20 years of age, the survey includes an Annual Sur-vey and inspection of a representative number of ballast spaces;

4) for all yachts which are 20 years of age and above, the survey has the scope of a class renewal survey (this is also applicable to yachts having their hull under continuous survey);

5) in the context of applying item 4) above, if dry-docking of the yacht is not due at the time of transfer, consideration can be given to carrying out an underwater examination in lieu of dry-docking.

6) in the context of applying items 4) above, the anchors and anchor chain cables ranging and gauging for ves-sels over 15 years of age is not required to be carried out as part of the class entry survey unless the class en-try survey is being credited as a periodical survey for maintenance of class.

   If the class entry survey is to be credited as a periodical survey for maintenance of class, consideration may be given by the gaining society to the acceptance of the anchors and anchor chain cables ranging and gauging carried out by the losing society provided they were carried out within the applicable survey window of the periodical survey in question;

7) in the context of applying 1) to 5) above, as applicable, tank testing for yachts over 15 years of age is not required to be carried out unless the survey is credited as a periodical survey for maintenance of class. If the class entry survey is to be credited as a periodical survey for maintenance of class, consideration may be given by Tasneef to the acceptance of the tank testing carried out by the losing Society provided they were carried out within the applicable survey window of the periodical survey in question;

8) in the context of applying items 3) to 5) above, as applicable:

   - if the class entry survey is to be credited as a periodical survey for maintenance of class, consideration may be given by Tasneef to the acceptance of thickness measurements taken by the losing society provided they were carried out within the applicable survey window of the periodical survey in question;
   - if the class entry survey is not to be credited as a periodical survey for maintenance of class, consider-ation may be given by Tasneef to the acceptance of thickness measurements taken by the losing society provided they were carried out within 15 months prior to completion of the class entry survey when it is within the scope of a Class Renewal Survey, or within 18 months prior to completion of the class en-try survey when it is within the scope of an Intermediate Survey.

   In both cases, the thickness measurements are to be reviewed by Tasneef for compliance with the applica-ble survey requirements, and confirmatory gaugings are to be taken to the satisfaction of Tasneef.

9) in the context of applying 1) to 5) above, as applicable, compliance with IACS Unified Requirements that demand fulfillment at the forthcoming due periodical surveys (such as S26 and S27) is not required unless the survey is credited as a periodical survey for maintenance of class.

b) Machinery (see Note 1):

A general examination of all essential machinery is held and includes the following:

1) examination under working conditions of fuel oil burning equipment of boilers, economizers and steam/steam generators. The adjustment of safety valves of this equipment is to be verified by checking the records on the yacht;

2) all pressure vessels;

3) insulation resistance, generator circuit-breakers, preference tripping relays and generator prime mover governors are to be tested and paralleling and load sharing to be proved (Note 1);

4) in all cases, navigating lights and indicators are to be examined and their working and alternative sources of power verified;

5) bilge pumps, emergency fire pumps and remote control for oil valves, fuel oil pumps, lubricating oil pumps and forced draught fans are to be examined under working conditions;

6) recirculating and ice clearing arrangements, if any;

7) the main and all auxiliary machinery necessary for operation of the yacht at sea together with essential controls and steering gear is to be tested under working conditions. Alternative means of steering are to be tested. A short sea trial is to be held at the Surveyor's discretion if the yacht has been laid up for a long period;

8) initial start arrangements are to be verified.

Note 1: For the transfer of class or adding class at yacht's delivery, items listed in 3) and 8) may be verified by re-viewing the yacht's records.

1.2 Transfer to the Society's class of a yacht surveyed during construction by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions, at yacht's delivery

1.2.1 General

A survey for assignment of class at yacht's delivery is to be held by Tasneef, the extent of which is that of an annual survey as a minimum.

2 Surveys required by IACS Procedural Requirement PR1B

2.1 Addition of the Society's class to a yacht in service classed by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions

2.1.1 General

Survey requirements for adding Tasneef's class to a yacht in service are indicated in [2.1.2] and [2.1.3].

2.1.2 Surveys for double class yachts

The requirements of [1.1] apply.

2.1.3 Surveys for dual class yachts

Notwithstanding the records indicating that all surveys are up-to-date, a survey for assignment of class is held by Tasneef, the extent of which is that of an annual survey as a minimum.

2.2 Addition of the Society's class to a yacht surveyed during construction by another QSCS Classification Society and in full compliance with all applicable and relevant IACS Resolutions, at yacht's delivery

2.2.1 General

A survey for adding Tasneef's class at yacht's delivery is to be held by Tasneef, the extent of which is that of an annual survey as minimum.

3 Surveys required by IACS Procedural Requirement PR1D

3.1 Yachts in service classed with a QSCS Classification Society but not in full compliance with all applicable and relevant IACS Resolutions or not classed with a QSCS Classification Society or not classed at all

3.1.1 General

In this case, the class of the yacht will be assigned upon a preliminary review of the documentation listed in in Ch 2, Sec 1, [3.6.2] and and subsequent satisfactory completion of the surveys, the extent and scope of which are given below.

Where the vessel has, during any portion of the five years prior to the request for classification being received, been previously classed by:

a) the Society, or

b) a Society subject to verification of compliance with QSCS

and has not been subject to alteration or modification since class was withdrawn, the survey requirements may be specially considered but are not to be less than:

- all overdue surveys and overdue conditions of class, for vessels previously classed with the Society;
- the surveys required by IACS Procedural Requirement PR1A as per [1.1.2], for vessels previously classed with a Society subject to verification of compliance with QSCS and full in compliance with all applicable and relevant IACS Resolutions.

3.1.2 Surveys

The minimum extent and scope of the admission to class entry survey are to be not less than those required at the class renewal survey is to be based on the age and type of the yacht as follows: of a yacht of the same age and type:

a) class renewal survey of hull, including thickness measurements

b) class renewal survey of machinery, inclusive of pressure vessel survey(s), as applicable

c) bottom survey in dry condition

d) tailshaft survey(s)

e) main boiler survey(s) and auxiliary boiler survey(s), as applicable

f) in addition to all other periodical surveys should be performed together with those inspections which are linked to specific service notations and/or additional class notations and/or special installations the yacht is provid-ed with.

The Society may request further examinations, tests and measurements, including but not limited to material testing, non-destructive testing, hydraulic and hydrostatic tests and sea trials.

4 Reassignment of class

4.1 Conditions for reassignment: surveys

4.1.1 The survey for reassignment of class consists of an admission to class survey, the consistency of which is determined by Tasneef on a case by case basis. Account may be taken of any periodical surveys held in the former period of class with The Society.

SECTION 3 ANNUAL SURVEY

1 General

1.1

1.1.1 The requirements of this Section apply to annual surveys of all yachts . Additional requirements for yachts constructed in material different from steel are set out in Ch 3, Appendix 3, 4 and 5. The specific requirements for annual surveys related to additional class notations assigned to yachts are addressed in Chapter 4.

1.1.2 At the time of annual surveys, the yacht is to be generally examined. The survey is to include a visual inspection of the hull, equipment and machinery of the yacht and some tests thereof, so far as necessary and practicable in order to verify that the yacht is in a satisfactory and efficient general condition and is properly maintained.

1.1.3 Owners are reminded that any modification to the yacht's hull, equipment and machinery affecting its classification is to be made known to the Society.

2 Hull

2.1 Scope

2.1.1 The survey is to consist of an examination for the purpose of ensuring, as far as practicable, that the hull, hatch covers, hatch coamings, closing appliances, equipment and related piping are maintained in a satisfactory condition.

2.2 Hull and hull equipment

2.2.1 The survey is to include a general external examination and testing, where appropriate, verifying the efficient condition of the following items, as applicable:

- outer shell plating above the waterline, relevant shell doors and accessible parts of the rudder(s)
- plating of freeboard deck and exposed decks, superstructures, with their openings and means of closure
- openings on exposed decks, with their coamings and their means of closure and securing arrangements
- sidescuttles and deadlights, chutes and other openings with their means of closure
- bulwarks, guard rails, freeing ports, gangways and lifelines, ladders
- scuppers and sanitary discharges, valves on discharge lines and their controls
- the means provided to minimise water ingress through the spurling pipes and chain lockers
- the arrangements for closing openings in the shell plating below the freeboard deck
- ventilators, air pipes, overflow pipes and gas vent pipes, with their means of closure and flame screens, where required. In particular:
  - examination of the weld connection between air pipes and deck plating
  - examination of flame screens on vents to all bunker tanks
  - examination of ventilators, including closing devices, if any.
- external examination of all air pipe heads installed on exposed decks including all automatic air pipe heads installed on exposed decks (see Note 2).
- freeboard marks on the yacht's sides
- deck equipment such as lifeboat davit foundations, bollards, fairleads, hawse pipes, etc., masts and associated rigging, including lightning conductors
- equipment of chain cables for anchors, windlass, mooring lines and mooring winches, where required
- confirmation that the towing and mooring equipment is properly marked with any restriction associated with its safe operation
- deck fittings, their pedestals, if any, and the hull structures associated with towing and mooring
- watertight bulkheads, their watertight doors and associated local and remote controls, and their watertight penetrations

- main and auxiliary steering arrangements, including their associated equipment and control systems, and manoeuvring gear
- fire divisions and fire doors, dampers in ventilation ducts, means of closure of skylights and other openings
- confirmation that emergency escape routes from accommodation and service spaces are satisfactory
- engine room and other dry spaces
- where fitted, the helicopter deck and its supporting structure, safety net and arrangements for the prevention of sliding
- availability of approved stability documentation
- accuracy of the shipboard computer for stability calculations (see Note 3)
- confirmation that no new materials containing asbestos have been installed on board.

Note 1: Due attention is also to be given to fuel oil piping passing through ballast tanks, which is to be pressure tested where doubts arise.

Note 2: Air pipe heads installed on exposed decks are those extending above the freeboard deck or superstructure decks.

Note 3: It is the responsibility of the yacht's Master to check the accuracy of the shipboard computer for stability calculations at each annual survey by applying at least one approved test condition (see Pt B, Ch 11, Sec 2, [4.5]). If a Surveyor of the Society is not present for the computer check, a copy of the test condition results obtained by the computer check is to be retained on board as documentation of satisfactory testing for the Surveyor's verification. The testing procedure is to be carried out in accordance with Pt B, Ch 11, Sec 2, [4.5.9].

2.3 Shell and inner doors

2.3.1 For the scope of survey of shell and inner doors, the following definitions are applicable:

- Securing device: a device used to keep the door closed by preventing it from rotating about its hinges
- Supporting device: a device used to transmit external or internal loads from the door to a securing device and from the securing device to the yacht's structure, or a device other than a securing device, such as a hinge, stopper or other fixed device, that transmits loads from the door to the yacht's structure
- Locking device: a device that locks a securing device in the closed position.

2.3.2 It is to be checked that the operating procedures for closing the shell and inner doors are kept on board and posted at appropriate places.

2.3.3 The structural arrangements as well as welding are to be examined, including:

- plating, primary structure and secondary stiffeners
- hinging arms, hinges and bearings, thrust bearings
- hull and door side supports of securing, supporting and locking devices
- shell plating surrounding the openings and the securing, supporting and locking devices.

Hinge, bearing and thrust bearing clearances are to be measured when no dismantling is necessary for the measurement, or when the function tests detailed below are not satisfactory.

2.3.4 A close visual inspection of securing, supporting and locking devices, including their weld connections, is to be carried out and clearances are to be measured as required.

Non-destructive tests and/or thickness measurements may be required by the Surveyor after visual examination or in cases where cracks or deformations have been found.

2.3.5 A close visual inspection of sealing arrangements (packing material, rubber gaskets, packing retaining bars or channels) is to be carried out. For the tightness hose test, refer to [2.3.7].

2.3.6 The drainage arrangements including bilge wells, drain pipes and non-return valves are to be visually examined.

2.3.7 Function tests are to be carried out as follows, according to the required and/or existing equipment on board:

a) doors are to be examined during a complete opening and closing operation; during this operation, the proper working of hinging arms and hinges, proper engagement of the thrust bearings and proper working of devices for locking the door in open position are to be checked

b) securing, supporting and locking devices are to be examined during a complete opening and closing operation; the following items are to be checked:
   - opening/closing system and securing/locking devices are interlocked in such a way that they can only operate in proper sequence

- mechanical lock of the securing devices
- the securing devices remain locked in the event of loss of hydraulic fluid, if they are of hydraulic type

c) indicators of open/closed position of doors and of securing/locking devices at remote control stations are to be checked; other safety devices such as isolation of the securing/locking hydraulic system from other hydraulic systems, access to operating panels, notice plates and warning indicator lights are to be checked

d) a tightness hose test or equivalent, of sealing arrangements is to be carried out

e) a working test of the indicator system is to be carried out, including checking of:

- visual indicators and audible alarms on the navigation bridge and operating panel
- lamp test function, fail safe performance, power supply for indicator system
- proper condition of sensors and their protection from water, ice formation and mechanical damage

f) electrical equipment for opening, closing and securing the doors is to be examined.

2.3.8 Examination of the weld connection between air pipes and deck plating.

2.3.9 External examination of all air pipe heads installed on exposed decks.

2.3.10 Examination of flame screens on vents to all bunker tanks.

2.3.11 Examination of ventilators, including closing devices, if any.

2.4 Suspect areas

2.4.1 Suspect areas identified at previous surveys are to be examined. Thickness measurements are to be taken of the areas of substantial corrosion and the extent of thickness measurements is to be increased to determine the extension of areas of substantial corrosion. Sec 3, Tab 2 may be used as guidance for these additional thickness measurements.

These extended thickness measurements are to be carried out before the annual survey is credited as completed.

2.5 Ballast tanks

2.5.1 Examination of ballast tanks is to be carried out when required as a consequence of the results of the class renewal survey and intermediate survey. When considered necessary by the Surveyor, or where extensive corrosion exists, thickness measurement is to be carried out. If the results of these thickness measurements indicate that substantial corrosion is found, then the extent of thickness measurements is to be increased to determine the extension of areas of substantial corrosion. Sec 3, Tab 2 may be used as guidance for these additional measurements. These extended thickness measurements are to be carried out before the annual survey is credited as completed.

2.6 Watertight Cable Transits

2.6.1 The Register (see Sec 1, [1.10.2] f)) is to be reviewed to confirm it is being maintained and as far as practicable the transits are to be examined to confirm their satisfactory condition.

2.6.2 Where there are records entered since the last annual survey of any disruption to the cable transits or installation of new cable transits, the satisfactory condition of those transits, in accordance with the manufacturer's requirements and in accordance with the requirements of type approval, is to be confirmed by review of records and, if deemed necessary, by examination.

It is to be confirmed that, where specified, appropriate specialized tools have been used.

The results are to be recorded in the Register against the specific cable transit.

3 Machinery and systems

3.1 General machinery installations

3.1.1 The survey of general machinery installations is to cover the following items:

- general examination of machinery and boiler spaces with particular attention to the fire and explosion hazards; confirmation that emergency escape routes are practicable and not blocked
- general examination of the machinery, steam, hydraulic, pneumatic ballasting arrangements, ventilation and other systems and their associated fittings, for confirmation of their proper maintenance

- testing of the means of communication and order transmission between the navigating bridge and the machinery control positions and other control stations
- confirmation that the rudder angle indicator on the bridge is in working order
- examination, as far as practicable, of the bilge pumping systems and bilge wells, including operation of the pumps, remote reach rods and level alarms, where fitted
- visual examination of the condition of any expansion joints in sea water systems
- external examination of pressure vessels other than boilers and their appurtenances, including safety devices, foundations, controls, relieving gear, high pressure piping, insulation and gauges
- visual examination of mechanical components used for cooling and maintaining an ambient temperature lower than 45°C (see Pt C, Ch 2, Sec 2, [1.2.2])
- confirmation that no new materials containing asbestos have been installed on board
- confirmation that the machinery, boilers and other pressure vessels, associated piping systems and fittings are installed and protected so as to reduce to a minimum any danger to persons on board, due regard being given to moving parts, hot surfaces and other hazards
- confirmation that the engineer's alarm is clearly audible in the engineers' accommodation
- confirmation that the normal operation of the propulsion machinery can be sustained or restored even though one of the essential auxiliaries becomes inoperative
- confirmation that means are provided so that the machinery can be brought into operation from the dead yacht condition without external aid
- examination, where applicable, of the alternative design and arrangements for machinery or electrical installations, low-flashpoint fuel storage and distribution systems, in accordance with the test, inspection and maintenance requirements, if any, specified in the approved documentation.

3.1.2 When the yacht is equipped with a refrigerating plant, the annual survey is to include the external examination of:

- pressure vessels of the installation to the same extent as indicated in [3.1.1]
- refrigerant piping, as far as practicable
- for refrigerating machinery spaces using ammonia as refrigerant:
  - ventilation system including functional test
  - bilge system including functional test
  - electrical equipment, confirming its proper maintenance
  - gas detection system
  - breathing apparatus and protective clothing.

3.1.3 When the yacht is equipped with thruster installations, the annual survey is to include:

- an external examination of the machinery installation
- an operating test of the complete installation.

3.2 Electrical machinery and equipment

3.2.1 The survey of electrical machinery and equipment is to cover the following items:

- general examination, visually and in operation, as feasible, of the electrical installations for power and lighting, in particular main and emergency generators, electric motors, batteries, switchboards, switchgears, cables and circuit protective devices, indicators of electrical insulation and automatic starting, where provided, of emergency sources of power
- checking, as far as practicable, the operation of emergency sources of power and, where they are automatic, also including the automatic mode.

3.2.2 The survey is also to cover the bridge control of propulsion machinery, and related arrangements (alarms and safety devices), when fitted.

The survey of an automated installation covered by an additional class notation is detailed in Chapter 5.

3.2.3 The survey is also to cover electrical components used for cooling and maintaining an ambient temperature lower than 45°C (see Pt C, Ch 2, Sec 2).

3.2.4 Additionally, on board yachts where harmonic filters are installed on main busbars of electrical distribution system, harmonic distortion levels of main busbar are to be measured under seagoing conditions, as close to the

periodical machinery survey as possible, so as to give a clear representation of the condition of the entire plant to the surveyor. Harmonic distortion readings are to be carried out when the greatest amount of distortion is indicated by the measuring equipment. An entry showing which equipment was running and/or filters in service is to be recorded in the log so this can be replicated for the next periodical survey.

Records of all the above measurements are to be made available to the surveyor at each periodical survey.

Note 1: harmonic filters installed for single application frequency drives such as pump motors are excluded from this requirement.

3.3 Exhaust Gas Cleaning Systems

3.3.1 The survey is to include a general external examination and testing, where appropriate, verifying the efficient condition of the following items, as applicable:

- Flag Administration's agreement on the use of Anydrous ammonia as reductant in SCR systems, as applicable
- availability on board of the Manufacturer's maintenance instructions (for emissions of sulphur exhaust (SOx))
- proper operation of the devices to control NOx emissions (for emissions of nitrogen oxides (NOx))
- the exhaust gas cleaning system, based on the Manufacturer's maintenance instructions (for emissions of sulphur exhaust (SOx))
- urea based ammonia's storage tank including arrangement for containment of leakage, for preventing contact with heated surfaces and for heating or cooling if fitted
- extraction type ventilation system fitted for the urea storage tank's room, including its remote control
- warning notice posted outside the compartment adjacent to each point of entry requiring the use of the urea storage tank room's ventilation before entering the compartment
- extraction type ventilation system fitted for compartment adjacent to integral tanks and/or containing urea piping passing trough, including its remote control and warning notice
- independence of the reductant piping and venting systems from other yacht service piping and/or systems. and not located in accommodation, service spaces, or control stations
- location of the vent pipes of the urea storage tank on the weather deck and the tank venting system is to be arranged to prevent entrance of water into the urea tank
- suitable personnel protective equipment, eyewash and safety showers derived from the detailed installation arrangements.

3.4 Ballast Water Management Systems (BWMS)

3.4.1 The survey is to include a general external examination and testing, where appropriate, verifying the efficient condition of the following items, as applicable:

- Type Approval Certificate (TAC) and specified Treatment Rated Capacity (TRC)
- Material Safety Data Sheet with relevant handling procedures and appropriate measure for BWMS using chemical substances
- an approved Ballast Water Management Plan is available on board together with updated ballast water record book
- an approved risk assessment as applicable in consideration of the BWMS category
- ballast water treatment system including ballast water management equipment, all associated control equipment, monitoring equipment and sampling facilities. based on the Manufacturer's maintenance instructions
- by-pass or override arrangement to effectively isolate it from any essential yacht system to which it is connected
- a suitable protection means provided, e.g. P/V valves or breather valves, including the location of their outlet where a vacuum may occur in the ballast
- Inert gas systems installed for de-oxygenation BWMS including their control, monitoring and alarm system
- independence of the automatic shutdown, when required, from the BWM control system
- gas detection equipment with relevant audible and visual alarm activated both locally and at the BWMS control station, for BWMS that generates a dangerous gas
- at least two oxygen sensors in spaces where inert gas generator systems or nitrogen generators are fitted with relevant audible and visual alarm, located at the prescribed location, set at oxygen level below 19%
- automatic shut-down when the oxygen level raises above 25%. Including relevant audible and visual and independent alarms
- at least one ozone sensor at the vicinity of the discharge outlet to the open deck from the ozone destructors with relevant audible and visual alarm, located at the prescribed location, set at ozone concentration level above 0,1 ppm. (For BWMS categories 7a and 7b only)

- automatic shut-down set at an ozone concentration level above 0,2 ppm (For BWMS categories 7a and 7b only)
- explosion proof ventilation and redundant ventilation fans and redundant monitoring of the ventilation system fitted for the hydrogen de-gas arrangement, when provided (For category 4, category 5 and category 6 only)
- audible and visual alarms and automatic shut-down set respectively at respectively high and high-high levels of H2 concentration. (For category 4, category 5 and category 6 only)
- ventilation fan spark arrestor to avoid ignition sources to enter the ventilation systems whereas remaining H2 gas may be present in dangerous concentrations. (For category 4, category 5 and category 6 only)
- mechanical exhaust ventilation Inside double walled space or pipe ducts constructed as the special safeguard for piping conveying active substances, by-products or neutralizers that are containing dangerous gas or dangerous liquids
- discharge to a safe location on the open deck of the inert gas or nitrogen product enriched air's from the inert gas system and from the protection devices installed on the ballast tanks (For BWMS categories 3a, 3b and 3c only).

4 Fire protection, detection and extinction

4.1

4.1.1 The survey of fire prevention and other general arrangements is to cover the following items:

- checking that fire control plans are properly posted
- examination and testing, as feasible, of the operation of manual and/or automatic fire doors, where fitted
- checking, as far as practicable, that the remote controls for stopping fans and machinery and shutting off fuel supplies in machinery spaces and, where fitted, the remote controls for stopping fans in accommodation spaces and the means of cutting off power to the galley are in working order
- examination of the closing arrangements of ventilators, funnel annular spaces, skylights, doorways and tunnel, where applicable
- examination, as far as practicable, and testing, as feasible and at random, of the fire and/or smoke detection systems.

4.1.2 The survey requirements for all types of fire-fighting systems that are usually found on board yachts related to machinery spaces and/or accommodation spaces, irrespective of the service notation assigned, are the following:

a) water fire system
   - o examination of the fire main system and confirmation that each fire pump including the emergency fire pump can be operated separately so that the two required powerful jets of water can be produced simultaneously from different hydrants, at any part of the yacht whilst the required pressure is maintained in the fire main
   - checking that fire hoses, nozzles, applicators, spanners and international shore connection (where fitted) are in satisfactory working condition and situated at their respective locations

b) fixed gas fire- extinguishing system
   - external examination of receivers of CO_2 (or other gas) fixed fire-existinguishing systems and their accessories, including the removal of insulation for insulated low pressure CO_2 conatainers
   - examination of fixed fire-fighting system controls, piping, instructions and marking; checking that the maintenance and servicing, including the filling ratio of gas bottles, have been carried out not more than two years beforehand and that the dates of the last tests of the system are in order;
   - test of the alarm triggered before the CO_2 is released

c) sprinkler system
   - examination of the system, including piping, valves, sprinklers and header tank
   - test of the automatic starting of the pump activated by a pressure drop
   - check of the alarm system while the above test is carried out

d) water-spraying system
   - examination of the system, including piping, nozzles, distribution valves and header tank
   - test of the starting of the pump activated by a pressure drop (applicable only for machinery spaces)

e) fixed foam systems (low of high expansion)
   - examination of the foam system
   - test to confirm that the minimum number of jets of water at the required pressure in the fire main is obtained when the system is in operation

- checking the supplies of foam concentrate and receiving confirmation that it is periodically tested (not later than three years after manufacture and annually thereafter) by the manufacturer or an agent

f) dry powder system
- examination of the dry powder system, including the powder release control devices
- checking the supplies of powder contained in the receivers and that it has maintained its original smoothness
- checking that the pressure of propelling inert gas contained in the relevant bottles is satisfactory.

g) Other fixed fire extinguishing systems, other than those listed above, are to be inspected, as far as applicable, with the same criteria as applied in item b).

Maintenance and servicing are to be carried out according to the requirements given by the relevant manufacturer and this maintenance and servicing scheme is to be indicated in a relevant maintenance manual issued by the manufacturer.

4.1.3 As far as other fire-fighting equipment is concerned, it is to be checked that:
- semi-portable and portable fire extinguishers and foam applicators are in their stowed position, with evidence of proper maintenance and servicing, and detection of any discharged containers
- firemen's outfits are complete and in satisfactory condition.

4.1.4 Where a helideck is fitted, the following is to be checked, as far as appropriate:
- drainage arrangements around the landing area
- fire fighting appliances and arrangements (to be surveyed as per [3.4.2], according to the equipment installed
- overall examination of refuelling systems and hangar facilities for cleanliness and absence of leaks, condition of gutters and drainage arrangement.

4.1.5 In any case the periodical servicing of vessels containing the extinguishing agents of the portable fire extinguishers is to be checked according to Tab 1 below.

5 Sailing yachts

5.1

5.1.1 In addition to the above, in sailing yachts the mast(s), mast steps, spars, standing and running rigging, rigging screws, chainplates, and associated structure for masts and spars are to be examined so far as is practicable. Visual examination of the zone of attachment of the bilge keel and relevant connecting bolts is to be carried out.

The record of the monitoring of the rigging in accordance with a planned maintenance schedule is to be made available at the request of the Surveyor.

Table 1 : Periodical servicing of vessels containing the extinguishing agents of the portable fire extinguishers on board yachts

<table>
<tr><th>Type of extinguisher</th><th>Charge check</th><th>Hydrostatic test</th><th>Test pressure</th></tr>
<tr><td>Water and foam</td><td>replacement of charge each year</td><td rowspan="2">at each class renewal survey

(5-year intervals)</td><td rowspan="2">1,5 times the working pressure (working pressure)

(2 MPa if the working pressure is unknown)</td></tr>
<tr><td>Powder with shell not kept under pressure</td><td>check each year replacement of charge at 5-year intervals</td></tr>
<tr><td>CO_2</td><td rowspan="2">at 2-year intervals</td><td rowspan="2">extinguishers sent ashore for refilling when found empty or low charged (less than 90% for CO_2 and with low pressure for powder extinguishers)</td><td>25 MPa</td></tr>
<tr><td>Halon

Powder with shell kept under pressure</td><td>1,5 times the working pressure
(2 MPa if the working pressure is unknown)</td></tr>
<tr><td>Small compressed air or gas bottles used in fire extinguishers not permanently kept under pressure</td><td>internal inspection at class renewal surveys</td><td>at class renewal surveys where
internal inspection is not possible</td><td>2 times the working pressure
25 MPa if of a CO_2 type with safety devices
35 N/mm^2 if of a CO_2 type without safety devices</td></tr>
</table>

SECTION 4 HULL INTERMEDIATE SURVEY

1 General

1.1

1.1.1 The requirements of this Section apply to intermediate hull surveys of all yachts. Additional requirements for yachts constructed in material different from steel are set out in Ch 3, Appendix 3, 4 and 5. The specific requirements for intermediate surveys related to additional class notations assigned to yachts are addressed in Chapter 4.

1.1.2 The intermediate survey is to include examination and checks on a sufficiently extensive part of the structure to show that the structures of the yacht are in satisfactory condition so that the yacht is expected to operate until the end of the current period of class, provided that the yacht is properly maintained and other surveys for mainte-nance of class are duly carried out during this period.

1.1.3 Owners are reminded that, in compliance with the requirements in Ch 2, Sec 2, [6.3], any modification to the yacht's hull, equipment and machinery affecting its classification is to be made known to Tasneef.

1.1.4 The Owner is to provide the necessary facilities to enable the class intermediate survey. The conditions for survey as detailed in Ch 2, Sec 2, [2.4] to Ch 2, Sec 2, [2.6] are to be met.

1.1.5 A survey-planning meeting is to be held prior to the commencement of the survey.

2 Hull

2.1 Hull and hull equipment

2.1.1 The scope of the intermediate survey includes the following requirements:

a) for yachts between 5 and 10 years of age, a general, internal examination of representative ballast tanks. If there is no hard protective coating, or soft or semi-hard coating, or poor coating condition, the examination is to be extended to other ballast tanks of the same type;

b) for yachts over 10 years of age, a general, internal examination of all ballast tanks.

If considered necessary by the Surveyor, thickness measurements may be required.

2.1.2 If such examinations reveal no visible structural defects, the examination may be limited to verification that the corrosion prevention system remains effective.

2.1.3 Suspect areas identified at previous class renewal surveys are to be examined. Areas of substantial corrosion identified at previous class renewal or intermediate surveys are to be subjected to thickness measurements.

2.1.4 The requirements given in Tab 1 for the survey and testing of salt water, integral sanitary and bilges tanks are to be complied with.

2.1.5 Ballast tanks are to be internally examined when required as a consequence of the results of the class renewal survey. Thickness measurements are to be carried out as considered necessary by the Surveyor.

3 Machinery and systems

3.1 Sailing yachts

3.1.1 In addition to the above, in sailing yachts, the mast(s), mast steps, spars, standing and running rigging, rigging screws, chainplates, and associated structure for masts and spars are to be examined so far as is practicable. Visual examination of the zone of attachment of the bilge keel and relevant connecting bolts is to be carried out.

The record of the monitoring of the rigging in accordance with a planned maintenance schedule is to be made available at the request of the Surveyor.

Table 1 : Intermediate survey of hull

ITEM	Age of the yacht (in years at the time of intermediate survey)	
	5 < age ≤ 10	Age > 10
SALT WATER BALLAST SPACES INTEGRAL SANITARY TANKS BILGES	Representative spaces internally examinated Thickness measurements, if considered necessary by the surveyor See **(1) (2) (3)**	All spaces internally examinated Thickness measurements, if considered necessary by the Surveyor Tightness of inner bottom of accommodation spaces in way of double bottom salt water ballast tanks checked (if deemed necessary by the Surveyor) See **(1) (3)**

(1) If no visible structural defects are present, the examination may be limited to verifying that the protective coating remains efficient.

(2) Where the protective coating is found to be in poor condition, as defined in Ch 2, Sec 2, [2.1.14], where a soft coating has been applied or where a protective coating has never been applied, i.e.neither at the time of construction nor thereafter, the examination is to be extended to other spaces of the same type (ballast, sanitary and bilge).

(3) For spaces (ballast, sanitary or bilges) other than double bottom tanks, where a protective coating is found to be in poor condition, as defined in Ch 2, Sec 2, [2.1.14], and is not renewed, where soft coating has been applied or where a protective coating has never been applied, i.e.neither at the time of construction nor thereafter, maintenance of class is to be subject to the spaces in question being internally examined and gauged as necessary annually. Tasneef may consider waiving such internal examination at annual surveys of tanks protected with soft coating, whose size is 12 m^3 or less.

For non-steel yachts, special consideration will be given by Tasneef to these tanks.

For double bottom tanks, where such breakdown of coating is found and is not renewed, where soft coating has been applied or where a protective coating has never been applied, i.e. neither at the time of construction nor thereafter, maintenance of class may be subject to the tanks in question being internally examined at annual intervals.

Note 1: Due attention is also to be given to fuel oil piping passing through ballast tanks, which is to be pressure tested should doubts arise.

SECTION 5 CLASS RENEWAL SURVEY

1 General

1.1

1.1.1 The requirements of this Section apply to class renewal surveys of all yachts. Additional requirements for yachts constructed in material different from steel are set out in Ch 3, Appendix 3, 4 and 5. The specific requirements for class renewal surveys related to additional class notations assigned to yachts are addressed in Chapter 4.

1.1.2 The class renewal survey is to include sufficiently extensive examination and checks to show that the structures, main and auxiliary machinery, systems, equipment and various arrangements of the yacht are in satisfactory condition or restored to such condition as to allow the yacht to operate for the new period of class to be assigned, provided that the yacht is properly maintained and other surveys for maintenance of class are duly carried out during this period.

The examinations of the hull are to be supplemented by thickness measurements and testing as required in [2.4.3], [2.4.4] and [2.5.1], to ensure that the structural integrity remains effective. The aim of the examination is to discover substantial corrosion, significant deformation, fractures, damages or other structural deterioration.

1.1.3 The Owner is to provide the necessary facilities to enable this class renewal survey. The conditions for survey as detailed in Ch 2, Sec 2, [2.5] to Ch 2, Sec 2, [2.8] are to be met.

1.1.4 When the yacht is under the continuous survey system for machinery and/or hull, the scope of the class renewal survey as described in this Section is carried out on a continuous basis over the period of class according to the procedure laid down in Ch 2, Sec 2, [4.3].

When the machinery installation is surveyed under the Planned Maintenance System, a specific program of survey replaces the scope of the class renewal survey of machinery and systems as laid down in [3] below, according to the procedure laid down in Ch 2, Sec 2, [4.4].

1.1.5 A survey-planning meeting is to be held prior to the commencement of the survey.

2 Hull and hull equipment

2.1 Bottom survey

2.1.1 The class renewal survey is to include a bottom survey as laid down in Sec 6.

2.2 Decks and equipment

2.2.1 Decks are to be examined, particular attention being given to the areas where stress concentration or increased corrosion is likely to develop, such as discontinuities of structure. Deck erections such as deckhouses and superstructures are to be examined.

The sheathing of wood-sheathed steel decks may be removed, at the Surveyor's discretion, in the case of doubt as to the condition of plating underneath. At class renewal surveys of yachts more than 15 years of age, portions of wood sheathing or other coverings on steel deck are to be removed, as considered necessary by the Surveyor, in order to ascertain the condition of the plating underneath; the same provision also applies to non-steel yachts.

Due attention is to be given to the examination in way of end and side openings and related shell and inner doors.

2.2.2 The survey of hull equipment is to cover the following points:

- windlass and chain stoppers, with disassembly as deemed necessary to verify the condition of the equipment and control and safety devices, hawse pipes;
- steering arrangements, including steering gear, control and indication devices, operational tests and disassembly as deemed necessary; in the case of chain and rod gears, chains, rods, sheaves, pins and rollers are to be examined for wear;
- connection of masts and standing rigging to the hull structure as well as condition of structure underneath.

2.2.3 Piping systems outside tanks and compartments are to be visually examined and pressure tested as necessary, as per the requirements laid down for the class renewal survey of machinery and systems; see [3.5].

2.2.4 Automatic air pipe heads are to be completely examined (both internally and externally) as indicated in Tab 4. For designs where the inner parts cannot be properly inspected from outside, this is to include removal of the head from the air pipe. Particular attention is to be paid to the condition of the zinc coating in heads construct-ed from galvanised steel.

2.2.5 The anchors and chain cables are to be ranged and examined, and the required complement and condition verified. The chain locker, holdfasts, hawse pipes and chain stoppers are to examined. At class renewal surveys of yachts more than 5 years of age, chain cables are to gauged and renewed in cases where their mean diameter is worn below the limits allowed (12%).

2.2.6 In yachts constructed of composite materials, particular attention is to be paid to the joints between deck and hull and between deck and superstructure. The structure in way of the bolted attachment of fittings including davits, hinges for shell doors, guardrails, stanchions, windlass, shaft brackets, mooring bitts, etc is to be examined.

2.3 Dry compartments

2.3.1 ‘Tweendecks, cofferdams, pipe tunnels and duct keels, void spaces and other dry compartments which are integral to the hull structure are to be internally examined, ascertaining the condition of the structure, bilges and drain wells, sounding, venting, pumping and drainage arrangements. For this purpose, the removal of interiors (linings, ceiling/cabin sole), insulations and coverings in general is to have an extension as deemed necessary by the Surveyor (also taking into consideration the age of the yacht).

2.3.2 Machinery and boiler spaces, pump rooms and other spaces containing machinery are to be internally examined, ascertaining the condition of the structure. Particular attention is to be given to tank tops, shell plating in way of tank tops, brackets connecting side shell frames and tank tops, and bulkheads in way of tank tops and bilge wells. Particular attention is also to be given to sea suctions, sea water cooling pipes and overboard discharge valves and their connections to the shell plating. Where wastage is evident or suspected, thickness measurements are to be carried out, and renewals or repairs effected when wastage exceeds allowable limits s.

Piping systems inside these spaces are to be dealt with according to [3.5].

2.3.3 Chain lockers are to be internally cleared, cleaned and examined, while the anchor chains are ranged as required in [2.2.5]. The pumping arrangement of the chain lockers is to be tested.

2.4 Tanks

2.4.1 The type and number of tanks to be internally examined at each class renewal survey are detailed in Tab 1 for cargo and ballast tanks and Tab 5 for fuel oil, lubricating oil and fresh water tanks, according to the age of the yacht.

Additionally for yachts fitted with selective catalytic reduction (SCR) systems using urea based ammonia solution stored in integral tanks see [2.4.6].

This internal examination is to ascertain the condition of the structure, bilges and drain wells, sounding, venting, pumping and drainage arrangements, including piping systems and their fittings. Due attention is to be given to plating or double plates below the lower end of sounding and suction pipes.

Where wastage is evident or suspected, thickness measurements are to be carried out, and renewals or repairs effected when wastage exceeds allowable limits.

Where the inner surface of the tanks is covered with cement or other compositions, the removal of coverings may be waived provided they are examined, found sound and adhering satisfactorily to the steel structures.

Note 1: For examination of independent (non-structural) tanks, refer to [3.5.9].

Note 2: Due attention is also to be given to fuel oil piping passing through ballast tanks, which is to be pressure tested when the yacht is more than 10 years old.

2.4.2 For salt water ballast spaces other than double bottom tanks, integral sanitary tanks and bilges where a protective coating is found to be in poor condition, as defined in Ch 2, Sec 2, [2.2.14] and is not renewed, where soft coating has been applied or where a protective coating has never been applied, i.e. neither at the time of construction nor thereafter, maintenance of class is to be subject to the spaces in question being internally examined at annual surveys. Tasneef may consider waiving such internal examination at annual surveys of tanks protected with soft coating, whose size is 12 m^3 or less.

For salt water ballast double bottom tanks, where such breakdown of coating is found and is not renewed, where soft coating has been applied or where a protective coating has never been applied, i.e.neither at the time of construction nor thereafter, maintenance of class may be subject to the tanks in question being internally examined at annual surveys.

Where provided, the condition of corrosion prevention systems of ballast tanks is to be examined. For ballast tanks excluding double bottom tanks, where a hard protective coating is found in poor condition and it is not renewed, where soft or semi-hard coating has been applied, or where a hard protective coating has not been applied since the time of construction, the tanks in question are to be examined at annual surveys. Thickness measurements are to be carried out as deemed necessary by the Surveyor.

When such breakdown of hard protective coating is found in double bottom ballast tanks and it is not renewed, where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied since the time of construction, the tanks in question may be examined at annual surveys. When considered necessary by the Surveyor, or where extensive corrosion exists, thickness measurements are to be carried out.

2.4.3 Boundaries of double bottom, ballast, peak and other tanks are to be tested by a head sufficient to give the maximum pressure that can be experienced in service. Tanks may be tested with the yacht afloat provided that their internal examination is also carried out with the vessel afloat.

Table 1 : Requirements for internal examination of structural tanks at class renewal survey

Type and use of structural tanks	Age of yacht (in years at time of class renewal survey)			
	age ≤ 5	5 < age ≤ 10	10 < age ≤15	age > 15
Peaks (all uses)	all	all	all	all
Salt water ballast tanks (all types)	all	all	all	all
Integral sanitary tanks	all	all	all	all
Fresh water tanks	none	one	all	all
Fuel oil - diesel oil tanks (engine room)	none	none	one	one
Fuel oil - diesel oil tanks (outside E.R.)	none	one	two **(2)**	half **(1) (2)**
Lubricating oil tanks	none	none	none	one

(1) Half of the tanks considered are to be internally examined every 5 years (tanks not internally examined may be examined externally from accessible boundaries); at the next class renewal survey the tanks not inspected at the previous survey are to be internally examined, and so on alternatively, so that each tank is internally examined every second class renewal survey.

(2) One deep tank is to be included, if fitted.

Note 1: Independent non-structural tanks are to be surveyed according to [3.5.9].

Note 2: The extent of the survey of tanks dedicated to liquids other than those indicated in this table will be considered by Tasneef on a case-by-case basis according to the nature of the liquids.

Note 3: If a selection of tanks is accepted for examination, then different tanks are to be examined at each class renewal survey, on a rotational basis.

Table 2 : Requirements for thickness measurements at class renewal survey for steel yacht

Age of yacht (in years at time of class renewal survey) **(1) (2)**			
I Renewal Survey (Yachts 5 years old)	II Renewal Survey (Yachts 10 years old)	III Renewal Survey (Yachts 15 years old) **(4)**	IV Renewal Survey (Yachts 20 years old)
Suspected areas	Suspected areas	Suspected areas	Suspected areas
Tanks where coating not in GOOD conditions, as deemed necessary by the surveyor	Tanks where coating not in GOOD conditions, as deemed necessary by the surveyor	Tanks where coating not in GOOD conditions, as deemed necessary by the surveyor	A minimum of three transverse sections within 0,5 L amidship **(3)**

(1) Thickness measurement locations should be selected to provide the best representative sampling of areas likely to be most exposed to corrosion.

(2) Thickness measurements of internals may be modified at the discretion of the Surveyor if the protective coating is in GOOD condition.

(3) For yachts less than 100 metres in length, the number of transverse sections required at the class renewal survey may be reduced to two

(4) For yachts more than 100 meters in length, at the class renewal surveys for yachts 15 < age ≤ 20, thickness measurements of exposed deck plating within 0,5 L amidship may be required.

Age of yacht (in years at time of class renewal survey) **(1)** **(2)**			
I Renewal Survey (Yachts 5 years old)	II Renewal Survey (Yachts 10 years old)	III Renewal Survey (Yachts 15 years old) **(4)**	IV Renewal Survey (Yachts 20 years old)
		All exposed main deck plating full length	Internals in forepeak and after peak tanks
		Internals in forepeak tank	All exposed main deck plating full length, including plating in way of wood deck planking or shaeting
		Shell plating in way of the waterline, full length	Representative exposed superstructure deck plating (poop, bridge, and forecastle deck)
			All wind and water strakes, port and starboard, full length
			Deck and side shell plating in way of galley and refrigerated store spaces
			Structure in way of integral sanitary tanks
			Shell and tanktop plating immediately adjacent to tank top margins
			Shell plating below portlights and windows
			All keel plates full length. Also, additional bottom plates in way of cofferdams, machinery space, aft end of tanks and cement/asphalt
			Plating of seachests. Shell plating in way of overboard discharges as considered necessary by the attending Surveyor

(1) Thickness measurement locations should be selected to provide the best representative sampling of areas likely to be most exposed to corrosion.

(2) Thickness measurements of internals may be modified at the discretion of the Surveyor if the protective coating is in GOOD condition.

(3) For yachts less than 100 metres in length, the number of transverse sections required at the class renewal survey may be reduced to two

(4) For yachts more than 100 meters in length, at the class renewal surveys for yachts 15 < age ≤ 20, thickness measurements of exposed deck plating within 0,5 L amidship may be required.

Table 3 : Guidance for additional thickness measurements in way of substantial corrosion areas

Structural member	Extent of measurements	Pattern of measurements
Plating	Suspect area and adjacent plates	5 point pattern over 1 square metre
Stiffeners	Suspect area	3 measurements each in line across web and flange

Table 4 : Survey requirements for automatic air pipe heads at class renewal surveys

Age of yacht (in years at time of class renewal survey due date)		
age ≤ 5	5 < age ≤ 10	age >10
- Two air pipe heads, one port and one starboard, located on the exposed decks in the forward 0,25 L, preferably air pipes serving ballast tanks. - Two air pipe heads, one port and one starboard, on the exposed decks, serving spaces aft of 0,25 L, preferably air pipes serving ballast tanks. See **(1)** and **(2)**	- All air pipe heads located on the exposed decks in the forward 0,25 L. - At least 20%of air pipe heads on the exposed decks serving spaces aft of 0,25 L, preferably air pipes serving ballast tanks. See **(1)** and **(2)**	- All air pipe heads located on the exposed decks. See **(3)**
(1) The selection of air pipe heads to be inspected is left to the attending Surveyor. **(2)** According to the results of this inspection, the Surveyor may require the inspection of other heads located on the exposed decks. **(3)** Exemption may be considered for air pipe heads where there is substantiated evidence of replacement within the previous five years.		

Table 5 : Requirements for internal examination of fuel oil, lubricating oil and fresh water tanks at class renewal survey

Type and use of structural tanks	Age of yacht (in years at time of class renewal survey)			
	age ≤ 5	5 < age ≤ 10	10 < age ≤15	age > 15
Fuel oil - diesel oil tanks (engine room)	none	none	one	one
Fuel tank(s) outside of engine room (if fitted)	none	one	one	two
Lubricating oil tanks	none	none	none	one
Fresh water tanks	none	one	all	all
Note 1: These requirements apply to tanks of integral (structural) type. **Note 2:** If a selection of tanks is accepted to be examined, then different tanks are to be examined at each class renewal survey, on a rotational basis. **Note 3:** Peak tanks (all uses) are subject to internal examination at each class renewal survey. **Note 4:** At class renewal survey no. 3 and subsequent (yachts older than 10 years), one deep tank for fuel oil in the cargo length area is to be included, if fitted.				

2.4.4 Boundaries of fuel oil, lube oil and fresh water tanks are to be tested with a head of liquid to the maximum filling level of the tank. Tank testing of fuel oil, lube oil and fresh water tanks may be specially considered based on a satisfactory external examination of the tank boundaries, and a confirmation from the Master stating that the pressure testing has been carried out according to the requirements with satisfactory results.

2.4.5 Other testing procedures, may be accepted.

2.4.6 Internal examination of urea based ammonia solution's integral tanks to check the condition of the anti-corrosion coating.

2.5 Thickness measurements

2.5.1 Thickness measurements are to be carried out according to the procedure detailed in Ch 2, Sec 2, App.1.

The extent of thickness measurements is detailed in Tab 2, according to the age of the yacht.

2.5.2 When the structure is coated and the coating is found to be in good condition, as defined in Ch 2, Sec 2, [2.2.14], the Surveyor may, at his discretion, accept a reduced program of thickness measurements in the corresponding areas. Other effective protective arrangements may also be considered.

The Surveyor may extend the thickness measurements as deemed necessary. When thickness measurements indicate substantial corrosion, the extent of thickness measurements is to be increased to determine areas of substantial corrosion. Tab 3 may be used as guidance for these additional thickness measurements. These extended thickness measurements are to be carried out before the survey is credited as completed.

2.5.3 When thickness measurements indicate substantial corrosion, the number of thickness measurements is to be increased to determine the extent of substantial corrosion. Tab 3 may be used as guidance for additional thickness measurements.

2.6 Shell and inner doors

2.6.1 A close visual inspection of structural arrangements is to be carried out, as well as non-destructive tests and/or thickness measurements, as deemed necessary by the Surveyor.

2.6.2 The close visual inspection of securing, supporting and locking devices, required at the annual survey, is to be supplemented by non-destructive tests and/or thickness measurements, as deemed necessary by the Surveyor.

2.6.3 Clearances of hinges, bearings and thrust bearings are to be measured. Dismantling may be required as deemed necessary by the Surveyor.

2.6.4 Non-return valves of drainage arrangements are to be checked after dismantling.

2.7 Watertight Cable Transits

2.7.1 The requirements for Special Survey may be undertaken by the attending Surveyor or by a firm approved as a service supplier according to Rules for the certification of Service Supplier.

2.7.2 All transits are to be examined to confirm their satisfactory condition and the Register (see Sec 1, [1.10.2] f)) is to be reviewed to confirm it is being maintained. The Special Survey is to be recorded in the Register, in which a single record entry will be sufficient to record the survey of all transits.

2.7.3 From review of the Register, where there are records entered since the last special survey of any disruption to the cable transits or installation of new cable transits (except which are reviewed and examined at previous annual surveys), the satisfactory condition of those transits, in accordance with the manufacturer’s requirements and in accordance with the requirements of type approval, is to be confirmed by the attending Surveyor by review of records and examination of the transits.

It is to be confirmed that, where specified, appropriate specialized tools have been used.

The results are to be recorded in the Register against each of those cable transits.

2.7.4 In case the cable transits have been examined by an approved service supplier, the attending surveyor is to review the Register in order to ascertain that it has been properly maintained by the Shipowner and correctly endorsed by the service supplier.

3 Machinery and systems

3.1 General

3.1.1 The survey items listed below are to be covered to the satisfaction of the Surveyor. However, other survey alternatives deemed equivalent by the Surveyor in relation to the characteristics and general condition of the yacht concerned may also be accepted.

Note 1: Attention is drawn to the requirement in Ch 2, Sec 2, [2.4.1] regarding safe execution of surveys, in particular as regards health hazards related to asbestos.

3.1.2 Machinery verification runs

a) As part of the renewal survey of machinery, a dock trial (or functional tests) is to be carried out to attending Surveyors' satisfaction to confirm satisfactory operation of main and auxiliary machinery. If significant repairs are carried out to main or auxiliary machinery or steering gear, consideration should be given to a sea trial to attending Surveyors' satisfaction.

b) If the significant repairs as stated in a) is considered by the society to have any impact on response characteristics of the propulsion systems, then the scope of sea trial shall also include a test plan for astern response characteristics based on those required for such an equipment or systems when fitted to the new yacht.

c) The tests are to demonstrate the satisfactory operation and astern response characteristics of the equipment or system under realistic service conditions at least over the manoeuvring range of the propulsion plant, from all control positions and for both ahead and astern directions. A test plan is to be provided by the yard and accepted by the surveyor. If specific operational characteristics have been defined by the manufacturer these shall be included in the test plan.

d) Depending on the actual extent of the repair, the Society may accept a reduction of the test plan.

e) The reversing characteristics of the propulsion plant, including the blade pitch control system of controllable pitch propellers, are to be demonstrated and recorded during trials.

3.2 Main and auxiliary engines and turbines

3.2.1 General

Depending on the type of machinery, the following parts are to be opened up as necessary for inspection. Parts and components are to be pressure tested as appropriate or as deemed necessary by the Surveyor. A working test is also to be carried out, including testing of alarms and safety devices.

3.2.2 Internal combustion engines

a) Columns and entablature

b) Cylinders with their liners, cylinder covers (together with valves and valve gear), pistons with their rods, crossheads, slippers and guides (or gudgeon pins), connecting rods (with their top and bottom end bearings), control gear, driven scavenge pumps, driven air compressors, driven fuel pumps, supercharging blowers, fuel injection pumps, turning gear, etc

c) Crankshafts (together with their main bearings)

d) Reverse gear, reduction gear and clutches, if fitted.

3.2.3 Gas turbines

a) Casings, rotors and disks, impellers and blading of all turbines and compressors, combustion chambers, burners, heat exchangers, gas piping, compressed air piping with fittings, starting and reverse arrangements

b) Shafts and their flexible couplings.

3.2.4 Electric propulsion

Where the propulsion machinery consists of an electrical system, the propulsion motors, generators, cables and all ancillary electrical gear, exciters and ventilating plant (including coolers) associated therewith are to be examined and the insulation resistance to earth tested. Due attention is to be given to windings, commutations and sliprings. The operation of protective gear and alarm devices is to be checked, as far as practicable. Interlocks intended to prevent unsafe operations or unauthorised access are to be checked to verify that they are functioning correctly.

3.2.5 Thruster installations

When the yacht is equipped with thruster installations, the class renewal survey is also to include:

- a thorough examination of the machinery and electrical installation, as applicable;
- an external examination of the propulsive part of the installation to be carried out at the dry dock survey due as part of the class renewal survey. During this examination other checks, such as clearance readings, tightness of hub and blade sealing for controllable pitch propellers, are to be verified. Locking arrangements for bolts, if fitted, are to be checked. Results of lubricating oil analysis to detect possible deterioration of internal gears and bearings or the presence of water are to be confirmed as acceptable. The Manufacturer's requirements may be taken into account. Dismantling of the assembly for the examination of internal parts may be required if the foregoing checks are not satisfactory;
- a running test of the system under operating conditions.

3.3 Reduction gears, main thrust and intermediate shaft(s)

3.3.1 Where the input power to reduction gear is up to 4000 kW, Tasneef may accept an agreed planned maintenance scheme as requested by the Manufacturer. As for the internal combustion engines, a work record book is to be kept on board duly signed by the Manufacturer's authorised representative at each service. This record is to be made available at the Surveyor's request.

Where the input power is greater than 4000 kW, reduction gears complete with all wheels, pinions, shafts, couplings, bearings and gear teeth, including incorporated clutch arrangements, are to be opened up, as deemed necessary by the Surveyor, for visual inspection.

For or complicated assemblies, gears and roller bearings may be inspected without dismantling.

3.3.2 All shafts, thrust blocks and bearings are to be examined.

3.4 Pumps and other machinery items

3.4.1 General

The items listed in [3.4.2] are to be opened up, as deemed necessary by the Surveyor, for visual inspection. Their parts and components are to be pressure tested as appropriate and considered necessary by the Surveyor. A working test is also to be carried out, including testing of alarms and safety devices if deemed necessary by the Surveyor.

3.4.2 Items to be surveyed

a) Air compressors with their intercoolers, filters and/or oil separators and safety devices

b) Heat exchangers, ventilation fans for boilers and other equipment used for essential services

c) Piston pumps and centrifugal pumps for sea water, bilge and salt water ballast

d) Screw pumps, gear pumps and centrifugal pumps other than those listed in c) above (opening up is not required)

e) Mechanical components used for cooling and maintaining an ambient temperature lower than 45°C (see Pt C, Ch 2, Sec 2, [1.2.2]).

3.5 Systems in machinery spaces

3.5.1 Valves, cocks and strainers of the bilge and ballast systems are to be opened up, thoroughly or partly as deemed necessary by the Surveyor, for visual inspection, and, together with the piping and safety devices, examined and tested under working conditions.

3.5.2 The fuel oil, lubricating oil, hydraulic oil, thermal oil, and feed and cooling water systems, together with pressure filters, heaters and coolers used for essential services, are to be opened up and examined or tested, as considered necessary by the Surveyor. Safety devices for the foregoing items are to be examined.

3.5.3 The compressed air system together with its valves, fittings and safety devices is to be examined, as considered necessary by the Surveyor.

3.5.4 Compressed air receivers and other pressure vessels for essential services are to be cleaned internally and examined internally and externally. Their fittings, valves and safety devices are to be opened up, as deemed necessary by the Surveyor, for visual inspection and pressure tested as appropriate.

3.5.5 Steel pipes for superheated steam having a temperature of the steam at the superheater outlet exceeding 450°C are to be examined and tested in accordance with [3.5.7] to [3.5.8] at each class renewal survey.

3.5.6 Steel pipes for saturated steam or superheated steam having a temperature of the steam at the superheater outlet not exceeding 450°C are to be examined and tested in accordance with [3.5.7] to [3.5.8] at each class renewal survey for yachts over 5 years of age. When the yacht is 5 years of age or less, the inspection may be limited to a check of the satisfactory general condition of pipes.

3.5.7 The examination and hydrostatic test of steel pipes for main steam machinery, and steel pipes for auxiliary steam machinery having internal diameter 75 mm and over, are to be carried out on a number of pipes selected by the Surveyor after the lagging in way is removed.

3.5.8 Representative pipe lengths connected with bolted flanges are to be internally and externally examined, and hydrostatically tested to 1,1 times the working pressure at ambient temperature. Bolts and butt-welded joints between flanges and pipes are to be submitted to a non-destructive test for crack detection.

3.5.9 Non-structural tanks located in machinery spaces are to be externally examined; the relevant fittings, with particular regard to the remote control shut-off valves under hydrostatic head, are to be externally examined to check the efficiency of manoeuvres and the absence of cracks or leakage.

3.5.10 When the yacht is equipped with a refrigerating plant (whether or not covered by an additional class notation), the class renewal survey is to include:

- examination and test at the design pressure of the parts of the plant under pressure
- for refrigerating machinery spaces using ammonia as refrigerant:
  - examination of valves and pumps of the bilge system to the same extent as indicated in [3.4]
  - examination and test of the electrical equipment to the same extent as indicated in [3.7.10]
  - test of the gas detection system.

3.6 Electrical equipment and installations

3.6.1 An electrical insulation resistance test is to be performed on the electrical equipment and cables. If needed, for the purpose of this test, the installation may be subdivided or equipment which may be damaged disconnected.

3.6.2 The prime movers of generators having P> 500 kW are to be surveyed in accordance with [3.2] and their governors tested. All generators are to be presented for inspection, clean and with covers opened and examined under working conditions.

3.6.3 Main and emergency switchboards, section boards and distribution boards are to be cleaned and doors or covers opened for examination of their fittings. The condition of overcurrent protective devices and fuses is to be checked. Circuit-breakers of generators are to be tested, as far as practicable, to verify that protective devices including preference tripping relays, if fitted, operate satisfactorily. The tightening of busbar connections is to be checked. The condition of earthing connections to the yacht's structure is to be checked.

3.6.4 Electrical cables and cable runs are to be examined at random, in particular in places where deterioration is likely to occur. Terminal boxes of essential services are also to be subjected to a random check.

3.6.5 The motors and starters concerning essential services together with associated control and switchgear are to be examined and, if considered necessary by the Surveyor, checked, as far as practicable, under working conditions.

3.6.6 Navigation light indicators are to be tested under working conditions, and correct operation on the failure of supply or failure of navigation lights verified.

3.6.7 The emergency sources of electrical power, their automatic arrangements and associated circuits are to be tested.

3.6.8 The installation of batteries, including charging and ventilation, is to be examined.

3.6.9 Emergency lighting, transitional emergency lighting, supplementary emergency lighting, general emergency alarm and public address systems (where fitted) are to be tested as far as practicable.

3.6.10 The visible condition of electrical equipment and installations is also to be checked as regards precautions against shock, fire and other hazards of electrical origin.

3.6.11 A general examination of the electrical equipment in areas where there may be flammable gas or vapour and/or combustible dust is to be carried out to ensure that the integrity of the electrical equipment of a safety type has not been impaired owing to corrosion, missing bolts, etc, and that there is not an excessive build-up of dust on or in dust-protected electrical equipment. Cable runs are to be examined for sheath and armouring defects, where practicable, and to ensure that the means of supporting the cables are in satisfactory condition. The proper condition of bonding straps for the control of static electricity is to be checked.

Note 1: Owners are reminded that maintenance, repairs or renewal of certified electrical equipment of a safe type remains their responsibility or that of their representatives.

3.7 Controls

3.7.1 Where remote and/or automatic controls, not covered by an additional class notation related to automated installation, are fitted for essential machinery, they are to be tested to demonstrate that they are in satisfactory condition.

3.8 Fire protection, detection and extinction

3.8.1 The Owner or his representative is to declare to the attending Surveyor that no significant changes have been made to the arrangement of structural fire protection.

Note 1: Attention is drawn to the provisions of Ch 1, Sec 1, [3.1.1] regarding compliance with any additional and/or more stringent requirements issued by the Administration of the State whose flag the yacht is entitled to fly.

3.8.2 The class renewal survey of fire prevention arrangements is to cover the following items.

a) Visible parts of items forming part of structural fire protection arrangements in accommodation and machinery spaces such as bulkheads, decks, doors, stairways, crew and service lift trunks, and light and air trunks are to be examined, due attention being given to their integrity and that of the insulating material;

b) The operation of manual/automatic fire doors, where fitted, is to be checked;

c) Remote controls for stopping fans and machinery and shutting off fuel supplies in machinery spaces are to be checked;

d) Remote controls for stopping fans in enclosed galleys are to be checked;

e) Closing systems of the main inlets and outlets of ventilation in machinery spaces and enclosed galleys are to be checked;

f) Closing arrangements of ventilators are to be checked;

g) Functioning of automatic fire dampers in deck or bulkhead within the accommodation, if any, is to be checked;

h) Fire and/or smoke detection and alarm systems are to be tested.

3.8.3 The survey requirements for all types of fire-fighting systems that are usually found on board yachts related either machinery spaces or to accommodation spaces are the following:

a) water fire system
- the associated pumps are to be opened up and examined at the Surveyor's discretion
- the fire main is to be hydrostatically tested to the working pressure at the Surveyor's discretion

b) fixed gas fire-extinguishing system

Receivers of CO_2 (or other gas) fixed fire-extinguishing systems are to be externally examined together with all stationary fittings and devices. In addition, the following applies:
- the total loss of CO_2 is not to exceed 10% of the installed quantity
- after being repaired or discharged, containers are to be subjected to a hydrostatic test
- hydrostatic testing of high pressure CO_2 containers is to be carried out at alternate class renewal surveys (starting from the 2^{nd}, i.e. : at the 2^{nd}, 4^{th}, etc.); the number of the tested containers is to be not less than 10% of the total number
- low pressure CO_2 containers are to be internally inspected if the content has been released and the container is older than five years; depending upon the result of the internal examination, the Surveyor may require the container to be hydrostatically tested

It is to be checked that the distribution pipework is proved clear

c) sprinkler system
- the associated pumps are to be opened up and examined at the Surveyor’s discretion

d) water-spraying system
- the associated pumps are to be opened up and examined at the Surveyor’s discretion
- a working test is to be carried out as far as reasonable and appropriate

e) fixed foam systems (low or high expansion)
- the associated pumps are to be opened up and examined at the Surveyor’s discretion

f) dry powder system
- it is to be verified that the propelling inert gas bottles have been hydrostatically tested. The same applies to bottles disembarked for refilling or embarked for replacement.

3.8.4 As far as other fire-fighting equipment is concerned, the following items are to be hydrostatically tested:
- shells of water and foam extinguishers
- shells of powder extinguishers
- air or gas bottles associated with fire extinguishers whose shells are not kept under pressure (if internally examined, the test need not be performed).

As far as concerns the bottles of extinguishers containing either CO_2 or powder with shell kept under pressure, they are to be hydrostatically tested whenever they are found empty or low charged (less than 90% for CO_2 and with low pressure for powder extinguishers).

3.8.5 Where a helideck is fitted, the following is to be checked, as far as appropriate:
- drainage arrangements around the landing area
- fire fighting appliances and arrangements (to be surveyed as per [3.8.3] and [3.8.4], according to the equip-ment installed)
- other arrangements for helicopter refuelling and hangar facilities (fuel system, ventilation, fire protection and detection).

3.9 Sailing yachts

3.9.1 An inspection of the ballast keel structure is to be carried out in way of external plating and relevant joints.

For steel hull yachts, the criteria for the thickness measurements to be applied are those indicated in Tab 2 for yachts 20 years old. In any case, thickness measurements are to be carried out for suspect areas.

3.9.2 On sailing yachts more than 10 years old, the following items are to be examined:

- Fastenings of external ballast keel;
- Pivot bolts and lifting arrangements after dismantelling on yachts fitted with centreplate or lifting keel.

3.9.3 On sailing yachts more than 15 years old, the masts are to be unshipped at least once every two special surveys, if the Surveyor is satisfied with the general condition of masts and rigging.

If after careful visual inspection it's considered necessary by the Surveyor a suitable number of keel fastenings are to be drawn for examination.

SECTION 6 BOTTOM SURVEY

1 General

1.1

1.1.1 The bottom survey may be carried out in dry condition, such as in dry dock or on a slipway, or through an in-water survey.

The conditions for acceptance of a bottom in-water survey in lieu of a bottom survey in dry condition are laid down in Ch 2, Sec 2, [7] and [3].

2 Bottom survey in dry condition

2.1 General requirements

2.1.1 When a yacht is in dry condition, it is to be placed on blocks of sufficient height and with the necessary staging to permit the examination of elements such as shell plating including bottom and bow plating, stern frame and rudder, sea chests and valves, propeller, etc.

2.1.2 The outer shell is to be visually examined for excessive corrosion, or deterioration due to chafing or contact with the ground or for any undue deformation or buckling.

Due attention is to be given to the end structures (stem and sternframe).

In particular, considering the different construction materials, the following is to be examined:

- metallic yachts: connection between bilge strakes and bilge keels.
- GRP yachts: condition of gel coat (presence of cracking, blistering and other damage);
- wooden yachts: condition of caulking and rivets.

Significant plate unevenness or other deterioration which does not necessitate immediate repairs is to be rec-orded.

2.1.3 Sea chests and their gratings, sea connections and overboard discharge valves and cocks and their fastenings to the hull or sea chests are to be examined. Valves and cocks need not be opened up more than once in a class renewal survey period unless considered necessary by the Surveyor.

2.1.4 Visible parts of the propeller(s), stern bush(es), propeller shaft boss, brackets and tightness system(s) are to be examined. The clearances of the propeller shaft(s) (or wear down gauge) are to be checked and recorded. For controllable pitch propellers, the Surveyor is to be satisfied with the fastenings and tightness of hub and blade sealing. Visible parts of other propulsion systems and propellers for steering purposes are also to be examined.

Dismantling is to be carried out, if considered necessary, notably where leakages are detected.

2.1.5 Visible parts of the rudder(s), rudder pintles, rudder stock and couplings as well as the sternframe are to be examined.

If considered necessary by the Surveyor, the rudder(s) is (are) to be lifted or the inspection plates removed for the examination of pintles. In any case, at least once in ten years the rudder is to be unshipped for examination of the rudder stock.

The clearances in the rudder bearings and the rudder lowering are to be checked and recorded. Where applica-ble, a pressure test of the rudder may be required as deemed necessary by the Surveyor.

2.1.6 In addition to the above, for bottom surveys of yachts constructed of material other than steel, the additional requirements set out in Ch 3, Appendix 3, 4 and 5 are to be complied with.

2.1.7 When deemed necessary by the Surveyor, at the time of dry-docking surveys the trials referred to in Sec. 5 [3.1.2] are to be carried out as applicable.

2.2 Bottom survey held within the scope of class renewal survey

2.2.1 The bottom survey held within the scope of the class renewal survey is to be carried out in compliance with [1.1]

3 Bottom in-water survey

3.1 General

3.1.1 An in-water survey may normally be carried out if the yacht has been granted the additional class notation INWATERSURVEY as defined in Ch 1, Sec 2, [6.14.3]. Upon application by the Owner and in special circumstances, the Society may also authorise such bottom in-water survey for yachts not assigned with the additional class notation INWATERSURVEY.

3.1.2 The bottom in-water survey is to provide the information normally obtained from a bottom survey carried out in dry condition. Special consideration is to be given to ascertaining rudder bearing clearances and stern bush clearances of oil stern bearings based on a review of the operating history, on board testing and stern oil sample reports. These considerations are to be included in the proposals for in-water survey, which are to be submitted in advance of the survey so that satisfactory arrangements can be agreed on with the Society.

3.1.3 Sea chests and their gratings, sea connections and overboard discharge valves and cocks and their fastenings to the hull or sea chests are to be examined. Valves and cocks need not be opened up more than once in two class renewal survey periods unless considered necessary by the Surveyor.

3.1.4 The in-water survey is to be carried out with the yacht in sheltered water and preferably with weak tidal streams and currents. The in-water visibility and the cleanliness of the hull below the waterline are to be good enough to permit a meaningful examination which allows the Surveyor and the in-water survey firm to determine the condition of the plating, appendages and welding.

The Society is to be satisfied with the methods of orientation of the divers or Remotely Operated Vehicle (ROV) on the plating, which should make use where necessary of permanent markings on the plating at selected points.

The equipment and the procedure for observing and reporting the survey are to be discussed with the parties involved prior to the in-water survey, and suitable time is to be allowed to permit the in-water survey firm to test all equipment beforehand.

3.1.5 The in-water survey is to be carried out under the surveillance of a Surveyor by an in-water survey firm approved by the Society in accordance with the "Rules for the Certification of Service Suppliers".

3.1.6 The Surveyor is to be satisfied with the method of pictorial representation, and good two-way communication between the Surveyor and the divers is to be provided.

3.1.7 If the in-water survey reveals damage or deterioration that requires early attention, the Surveyor may re-quire the yacht to be drydocked in order for a detailed survey to be undertaken and the necessary repairs carried out.

3.2 Sailing yachts

3.2.1 In bottom survey of sailing yachts, particular attention is to be paid to the attachment of bilge or centreline ballast keels to adjacent structures.

In particular, an inspection of the ballast keel structure is to be carried out in way of external plating and relevant joints.

SECTION 7 TAILSHAFT SURVEY

1 Survey of shafts

1.1 General

1.1.1 The different types of surveys to which tailshafts may be subjected:

- Method 1, Method 2 or Method 3 for oil lubricated or Closed Loop System Fresh Water Lubricated Shafts
- Method 4 for shafts lubricated by water in an open loop system

and the intervals at which they are to be carried out are given in Ch 2, Sec 2, [8].

1.2 METHOD 1

1.2.1 The survey is to consist of:

a) drawing the shaft and examining the entire shaft, seals system and bearings;

b) for keyed and keyless connections:
   - removing the propeller to expose the forward end of the taper,
   - performing a non-destructive examination (NDE) by an approved surface crack-detection method all around the shaft in way of the forward portion of the taper section, including the keyway (if fitted). For shafts provided with liners, the NDE is to be extended to the after edge of the liner.

c) for flanged connection:
   - whenever the coupling bolts of any type of flange-connected shaft are removed or the flange radius is made accessible in connection with overhaul, repairs or when deemed necessary by the surveyor, the coupling bolts and flange radius are to be examined by means of an approved surface crack detection method;

d) checking and recording the bearing clearances;

e) verification that the propeller is free of damage which may cause the propeller to be out of balance;

f) verification of the satisfactory conditions of inboard and outboard seals during the re-installation of the shaft and propeller;

g) recording the bearing weardown measurements (after re-installation).

1.3 METHOD 2

1.3.1 The survey is to consist of:

a) for keyed and keyless connections:
   - removing the propeller to expose the forward end of the taper,
   - performing a non-destructive examination (NDE) by an approved surface crack-detection method all around the shaft in way of the forward portion of the taper section, including the keyway (if fitted);

b) for flanged connection:
   - whenever the coupling bolts of any type of flange-connected shaft are removed or the flange radius is made accessible in connection with overhaul, repairs or when deemed necessary by the surveyor, the coupling bolts and flange radius are to be examined by means of an approved surface crack detection method;

c) checking and recording the bearing weardown measurements;

d) visual inspection of all accessible parts of the shafting system;

e) verification that the propeller is free of damage which may cause the propeller to be out of balance;

f) seal liner found to be or placed in a satisfactory condition;

g) verification of the satisfactory re-installation of the propeller including verification of satisfactory conditions of inboard and outboard seals.

Pre-requisites to satisfactorily verify in order to apply METHOD 2:

- review of service records;

- review of test records of:
  - Lubricating Oil analysis (for oil lubricated shafts), or
  - Fresh Water Sample test (for closed system fresh water lubricated shafts);
- oil sample examination (for oil lubricated shafts), or Fresh Water Sample test (for closed system fresh water lubricated);
- verification of no reported repairs by grinding or welding of shaft and/or propeller.

1.4 METHOD 3

1.4.1 The survey is to consist of:

a) checking and recording the bearing weardown measurements;

b) visual inspection of all accessible parts of the shafting system;

c) verification that the propeller is free of damage which may cause the propeller to be out of balance;

d) seal liner found to be or placed in a satisfactory condition;

e) verification of the satisfactory conditions of inboard and outboard seals.

Pre-requisites to satisfactorily verify in order to apply METHOD 3:

- review of service records;
- review of test records of:
  - Lubricating Oil analysis (for oil lubricated shafts), or
  - Fresh Water Sample test (for closed system fresh water lubricated shafts);
- oil sample examination (for oil lubricated shafts), or Fresh Water Sample test (for closed system fresh water lubricated);
- verification of no reported repairs by grinding or welding of shaft and/or propeller.

1.5 METHOD 4

1.5.1 The survey is to consist of:

a) drawing the shaft and examining the entire shaft (including liners, corrosion protection system and stress reducing features, where provided), inboard seal system and bearings;

b) for keyed and keyless connections:
   - removing the propeller to expose the forward end of the taper,
   - performing a non-destructive examination (NDE) by an approved surface crack- detection method all around the shaft in way of the forward portion of the taper section, including the keyway (if fitted). For shafts provided with liners, the NDE is to be extended to the after edge of the liner;

c) for flanged connection:
   - whenever the coupling bolts of any type of flange-connected shaft are removed or the flange radius is made accessible in connection with overhaul, repairs or when deemed necessary by the surveyor, the coupling bolts and flange radius are to be examined by means of an approved surface crack detection method;

d) checking and recording the bearing clearances;

e) verification that the propeller is free of damage which may cause the propeller to be out of balance;

f) verification of the satisfactory conditions of inboard seal during re-installation of the shaft and propeller.

1.6 Extension surveys

1.6.1 Extension up to 2.5 years for oil lubricated shafts or closed loop system fresh water lubricated shafts

The survey is to consist of:

a) checking and recording the bearing weardown measurements, as far as practicable;

b) visual inspection of all accessible parts of the shafting system;

c) verification that the propeller is free of damage which may cause the propeller to be out of balance;

d) verification of the effectiveness of the inboard seal and outboard seals.

Pre-requisites to satisfactorily verify in order to apply EXTENSION UP TO 2.5 YEARS:

- review of service records;

- review of test records of:
  - Lubricating Oil analysis (for oil lubricated shafts), or
  - Fresh Water Sample test (for closed system fresh water lubricated shafts);
- oil sample examination (for oil lubricated shafts), or Fresh Water Sample test (for closed system fresh water lubricated);
- verification of no reported repairs by grinding or welding of shaft and/or propeller;
- confirmation from the Chief Engineer that the shafting arrangement is in good working condition.

1.6.2 Extension up to 1 year for oil lubricated shafts or closed loop system fresh water lubricated shafts

The survey is to consist of:

a) visual inspection of all accessible parts of the shafting system;

b) verification that the propeller is free of damage which may cause the propeller to be out of balance;

c) verification of the effectiveness of the inboard seal and outboard seals.

Pre-requisites to satisfactorily verify in order to apply EXTENSION UP TO 1 YEARS:

- review of the previous weardown and/or clearance recordings;
- review of service records;
- review of test records of:
  - Lubricating Oil analysis (for oil lubricated shafts), or
  - Fresh Water Sample test (for closed system fresh water lubricated shafts);
- oil sample examination (for oil lubricated shafts), or Fresh Water Sample test (for closed system fresh water lubricated);
- verification of no reported repairs by grinding or welding of shaft and/or propeller;
- confirmation from the Chief Engineer that the shafting arrangement is in good working condition.

1.6.3 Extension up to 3 months for oil lubricated shafts or closed loop system fresh water lubricated shafts

The survey is to consist of:

a) visual inspection of all accessible parts of the shafting system;

b) verification of the effectiveness of the inboard seal.

Pre-requisites to satisfactorily verify in order to apply extension up to 3 months:

- review of the previous weardown and/or clearance recordings;
- review of service records;
- review of test records of:
  - Lubricating Oil analysis (for oil lubricated shafts), or
  - Fresh Water Sample test (for closed system fresh water lubricated shafts);
- oil sample examination (for oil lubricated shafts), or Fresh Water Sample test (for closed system fresh water lubricated);
- verification of no reported repairs by grinding or welding of shaft and/or propeller;
- confirmation from the Chief Engineer that the shafting arrangement is in good working condition.

1.6.4 Extension up to 1 year for water lubricated shafts (open loop systems)

The survey is to consist of:

a) visual inspection of all accessible parts of the shafting system;

b) verification that the propeller is free of damage which may cause the propeller to be out of balance;

c) checking and recording the bearing clearances;

d) verification of the effectiveness of the inboard seal.

Pre-requisites to satisfactorily verify in order to apply EXTENSION UP TO 1 YEAR:

- review of the previous clearance recordings;
- review of service records;
- verification of no reported repairs by grinding or welding of shaft and/or propeller;
- confirmation from the Chief Engineer that the shafting arrangement is in good working condition.

1.6.5 Extension up to 3 months for water lubricated shafts (open loop systems)

The survey is to consist of:

a) visual inspection of all accessible parts of the shafting system;

b) verification that the propeller is free of damage which may cause the propeller to be out of balance;

c) verification of the effectiveness of the inboard seal.

Pre-requisites to satisfactorily verify in order to apply EXTENSION UP TO 3 MONTHS:

- review of the previous clearance recordings;
- review of service records;
- verification of no reported repairs by grinding or welding of shaft and/or propeller;
- confirmation from the Chief Engineer that the shafting arrangement is in good working condition.

1.6.6 Where the notation **MON-SHAFT** has been assigned as specified in Ch 2, Sec 2, [8.3.1], the tailshaft need not be withdrawn provided that all condition monitoring data (bearing temperature, consumption and analysis of lubricating oil) is found to be within permissible limits and the remaining requirements for the complete survey are complied with.

Where the Surveyor considers that the data presented is not entirely to his satisfaction, the shaft is to be withdrawn.

2 Periodical survey of other propulsion systems

2.1 Rotating and azimuth thrusters

2.1.1 The periodical survey of rotating and azimuth thrusters consists of:

a) removing the propeller(s) in order to examine the following items, as applicable:
   - exposed parts
   - cone and keyway to be checked by an appropriate crack detection method
   - sealing glands
   - threaded end and nut.

   For keyless or flange mounted propellers, alternative means to removal of the propeller for examination of the shaft cone, such as pressure testing of the hub and hub gland, may be adopted at alternate surveys;

b) examining the results of a lubricating oil analysis (water content and presence of material particles) to detect possible deterioration of internal gears and bearings

c) examining the orientation device.

If the foregoing checks are not satisfactory, dismantling of the internal parts may be required.

2.2 Vertical axis propellers

2.2.1 The periodical survey of vertical axis propeller systems consists of:

- checking the tightness of the oil glands and the backlash of the gears from outside by action on the blades
- checking the condition of gears and couplings from inside the yacht
- examining the results of a lubricating oil analysis (water content and presence of material particles) to detect possible deterioration of internal gears and bearings.

If the foregoing checks are not satisfactory, dismantling of the internal parts may be required.

2.3 Pump jet systems

2.3.1 The periodical survey of pump jet systems consists of examining the following parts:

- impeller, shaft and clearances of bearings
- tightness of gland
- water duct
- steering nozzle
- reversing arrangements and control gear.

If the foregoing checks are not satisfactory, further dismantling may be required.

SECTION 8 GAS FUELLED YACHTS

1 Gas fuelled yachts

1.1 Application

1.1.1 Pt A, Ch 3, Sec 9 of Tasneef Rules for the Classification of Ships as far as it is reasonable applies.

APPENDIX 1 ALTERNATIVES, RELAXATIONS AND ADDITIONAL CONSIDERATIONS FOR YACHTS OF LESS THAN 500 GT

1 Alternatives, relaxations and additional considerations for yachts of less than 500 GT

1.1 With reference to Sec 1, [1.10.2] Yacht Construction File

1.1.1 The watertightness of cables transit need not necessarily be of an approved type, but to be found suitable to grant watertightness.

1.2 With reference to Sec 2 SURVEY FOR ASSIGNMENT OF CLASS OF A YACHT IN SERVICE

1.2.1 Surveys and documentation f or yachts of less than 100 gross tonnage, special consideration will be given to the scope of surveys and documentation to be supplied.

1.3 With reference to Sec 3, [2.6] watertight cable transit

1.3.1 The watertightness of cables transit need not necessarily be of an approved type but have to be verified on board.

1.4 With reference to Sec 5, [2.7] watertight cable transit

1.4.1 The watertightness of cables transit need not necessarily be of an approved type but have to be verified on board.

APPENDIX 2 ALTERNATIVES, RELAXATIONS AND ADDITIONAL CONSIDERATIONS FOR YACHTS OF LESS OF LESS THAN 24M LLL

1 General

1.1

1.1.1 No further relaxations to Appendix 1 are foreseen.

APPENDIX 3 ADDITIONAL SCOPE OF SURVEY FOR YACHTS WITH REINFORCED PLASTIC HULLS

1 General

1.1

1.1.1 The requirements of this Annex apply to yachts with reinforced plastic hulls.

For the purpose of classification and surveys, the requirements of Pt A, are to be complied with, taking into ac-count the modifications and additions specified in [2], [3] and [4], as far as the frequency and the technical re-quirements relevant to surveys are concerned.

2 Periodical surveys and relevant frequency, bringing forward and postponements

2.1 Surveys in general

2.1.1 For all periodical surveys, the requirements of Pt A, Ch 2, Sec 2 are to be fulfilled. However, in the case of yachts more than 15 years old, the frequency of the bottom survey is subject to special consideration.

3 First classification Surveys

3.1 First Classification Surveys of yachts built under the Society supervision

3.1.1 With reference to lamination, special inspections are required at the following stages.

For hand lay-up lamination:

a) when the hull lamination starts with the application of gel-coat;

b) during the hull lamination at different stages;

c) before starting the arrangement of internal stiffeners;

d) when the hull is extracted from the mould;

e) when the connection of the hull to the deck starts;

f) before the installation of the dolly, if any

g) when the core of sandwich structure is arranged.

For particular lamination processes in an enclosed mould, such as infusion lamination, the lamination survey scope is to be agreed with the Society Surveyor, but in any case special inspections are required at the following stages:

a) at the application of the release agent and the gel coat prior to starting with application of the laminate;

b) when the dry reinforcements layers and cores are fitted on the mould;

c) at the vacuum application for the initial check prior to starting with the lamination andrelated to:
   - consolidation of the bag;
   - vacuum application;
   - vacuum/leakage control;

d) during the resin infusion to verify and record the following data:
   - waiting time;
   - infusion time;
   - vacuum during the infusion;

e) after the bag take-off to inspect the result of the lamination;

f) before starting the arrangement of internal stiffeners;

g) when the hull is extracted from the mould for the final inspection;

h) when the connection of the hull to the deck starts;

i) before the installation of the dolly, if any.

When thermosetting resins are employed, attention is to be paid to the type and quantity of catalyst agent employed so as to be compatible with the resin and the temperature and humidity of the space where composite fabrication and the curing process take place.

On the basis of the shipyard's Quality Control System, the Society Surveyor may not attend some of the above inspections provided that satisfactory records and internal checks are submitted to him.

In addition, during the supervision of the first hull, an inspection of the shipyard is performed in order to verify that it is provided with adequate equipment in relation to the materials used and to the type of manufacture and that the quality of the laminates is ensured.

For lamination processes such as closed moulding vacuum infusion, vacuum bagging, post-curing process and other advanced processes, the relevant Production Control System adopted by the shipyard is to be approved by the Society.

The above Production Control System is to be in compliance with Tasneef Rules for the Certification of the Production Quality Control System of Manufacturers of yachts or other products built in composite material.

When the Production Control System is certified by the Society, all or parts of the above inspections may be reduced according to agreements stipulated with the Society.

3.2 First Classification Surveys of yachts built without the Society supervision

3.2.1

The eligibility for class is evaluated on the basis of substantial compliance with the applicable Tasneef Rules, with the examination of main drawings and documents, and following the outcome of a first classification survey specifically carried out with an extension adequate to the individual cases.

Where appropriate, within reasonable limits, a proven service record of satisfactory performance may be used as a criterion of equivalence. Special consideration will be given to yachts of recent construction.

For the purpose of classification, it may be required that adequate data for the evaluation of materials, machinery and arrangements in general are made available; such adequate data may consist of the details of specific rules and requirements originally applied but, where appropriate, tests and checks, to be established in the individual cases, may also be required.

4 Periodical hull surveys

4.1 Annual and hull intermediate surveys

4.1.1 In the case of hulls made of sandwich type structures, it is to be carefully checked that the parts are not detached from the core. The check is to be performed by hammering the shell and evaluating the differences in the sound heard or by means of checks with non-destructive methods recognised by the Society.

4.1.2 The connection between hull and deck is to be carefully checked, in particular when hull and deck are made of different materials.

4.2 Class renewal survey (hull) and bottom survey in dry condition

4.2.1 In addition to the requirements for the intermediate surveys given in [4.1], the presence of "osmosis" phenomena in the laminates of the underwater body and/or of cracks in the gel-coat is to be verified.

To this end, the yacht is to be made available for the bottom survey in dry condition before the application of any paint, so as to allow a careful visual inspection.

In-water survey in lieu of bottom survey in dry condition will be specially considered by the Society on a case-by-case analysis.

APPENDIX 4 ADDITIONAL SCOPE OF SURVEY FOR YACHTS WITH ALUMINIUM ALLOY HULLS

1 General

1.1

1.1.1 The requirements of this Annex apply to yachts with aluminium alloy hulls.
The applicable requirements of Pt A are generally to be complied with, taking account of the modifications and additions specified in [2] and [3], as far as the frequency and the technical requirements relevant to surveys are concerned.

2 Periodical surveys and relevant frequency, bringing forward and postponements

2.1 Surveys in general

2.1.1 For all periodical surveys, the requirements of Pt A, Ch 2, Sec 2 are to be fulfilled. However, in the case of yachts more than 15 years old, the frequency of the bottom survey is subject to special consideration.

3 First Classification Surveys

3.1 First classification surveys of yachts built under Tasneef supervision

3.1.1 The eligibility for class is evaluated on the basis of substantial compliance with the applicable Tasneef Rules, with the examination of main drawings and documents, and following the outcome of a first classification survey specifically carried out with an extension adequate to the individual cases.

Where appropriate, within reasonable limits, a proven service record of satisfactory performance may be used as a criterion of equivalence. Special consideration will be given to yachts of recent construction.

For the purpose of classification, it may be required that adequate data for the evaluation of materials, machinery and arrangements in general are made available; such adequate data may consist of the details of specific rules and requirements originally applied but, where appropriate, tests and checks, to be established in the individual cases, may also be required.

APPENDIX 5 ADDITIONAL SCOPE OF SURVEY FOR YACHTS WITH WOODEN HULLS

1 General

1.1

1.1.1 The requirements of this Annex apply to yachts with wooden hulls.

The applicable requirements of Pt A are generally to be complied with, taking account of the modifications and additions specified in [3.1], [3.2], [3.3] and [3.4], as far as the frequency and the technical requirements relevant to surveys are concerned.

2 Periodical surveys and relevant frequency, bringing forward and postponements

2.1

2.1.1 The requirements of Pt A, Ch 2, Sec 2 of the Rules are to be fulfilled; however, in the case of yachts more than 10 years old, the frequency of the bottom survey is subject to special consideration.

3 Periodical hull surveys

3.1 Annual and hull intermediate surveys

3.1.1 The yacht is to be inspected, as far as practicable at the time of the survey, in order to verify that the hull and its equipment are in a satisfactory and efficient condition and that no significant unapproved modifications or alterations have been made which could affect the class and/or the safety of the yacht concerned.

The checks to be performed to this end are to include, inter alia, the following items:

a) the outside shell above the waterline, with particular attention to the butts of shell and sheerstrake planking;

b) weather decks, with particular attention to the butts of waterways, inner waterways and planking;

c) hatchways (coamings, shifting beams, fore and aft covers, etc), other deck openings (with closing appliances, ventilator coamings, etc.) and bulwarks;

d) deck fittings and appliances, such as bollards, fairleads, guard-rails, ladders, etc.;

e) masts and rigging, and sails, if any (with iron fittings, standing and running rigging, etc.), including lightning conductors;

f) wire equipment - towline, hawsers and warps, and stream-anchor wire (or chain), if required;

g) the windlass and chain-cables as far as accessible;

h) the equipment of anchors and chain-cables;

i) main and auxiliary steering arrangements, with particular attention to the rod and chain gear, if fitted;

j) freeboard marks;

k) the deck outfit, tools and gear;

l) enclosed spaces, as far as accessible at the time of the survey.

For the purpose of the above, survey operations other than those mentioned above, but deemed equivalent by the Tasneef Surveyor in terms of the characteristics and general condition of the yacht concerned, may also be carried out.

3.1.2 In addition to the provisions given in [3.1.1], at alternate annual surveys starting from the second class renewal survey, all enclosed spaces are to be examined by the Tasneef Surveyor in charge to verify their condition.

In the course of the inspection, the following hull structural members are to be examined in particular: beams, deck, girders, pillars, knees, frames (after removal of air-courses and ceiling at the discretion of the Surveyor), breasthooks, deadwoods, keelsons, inner planking (beam shelves, clamps, thick strakes of ceiling, sparring, etc), with particular attention to the examination of the butts of all longitudinal members.

Fastenings are also to be examined to verify their general condition.

The Surveyor may require a check of the condition of the structure by means of a more extensive specific examination, such as removal of portions of the inner planking and testing of timbers by axe, chisel or other suitable tool.

3.2 Bottom surveys

3.2.1 The survey is to consist of the following checks:

a) Check of the condition of the outside planking and its caulking by means of suitable tests, as deemed necessary by the attending Surveyor, on each side of the yacht, amidships and at the ends, in the vicinity of the waterline and near to the keel, with local removal of any metal sheathing, as necessary. When evidence of deterioration is found in the outside planking and its caulking, additional tests are to be carried out as necessary to determine the extent of renewal of planking or re-caulking required. If it is found that general re-caulking of the outside planking is necessary, the metal sheathing, if any, is to be entirely removed and the outside planking is to be thoroughly cleaned. At the discretion of the Tasneef Surveyor, after re-caulking the metal sheathing is to be renewed either entirely or in the deteriorated areas.

b) Check of the condition of keel, deadwood, stem, sternpost, rudder and associated pintles and gudgeons and all sea openings.

c) Examination of sea connections, of the attachments of valves to the yacht shell and of gratings; where the valves fitted to the yacht shell are of cast iron, they are to be opened for examination at every Docking Survey; where they are of ductile material, they are to be opened for examination at intervals not exceeding 4 years.

d) Measurement of clearances in the rudder gudgeons and the wear down in the rudder carrier bearing and sternbush.

Moreover, in the case of a docking survey held concurrently with a first classification or special survey, all those checks are to be performed which are required for such surveys and which can only be carried out when the yacht is in dry dock or on a slipway.

3.3 Class renewal survey No. 1

3.3.1 The survey is to include examination and checks sufficiently extensive to ensure that the structures, systems and equipment of the yacht are in good order or are restored to such condition as to allow the yacht to operate safely for the new period of class to be assigned.

To this end, the operations listed below, or others deemed equivalent by the Tasneef Surveyor in relation to the characteristics of the yacht concerned, are to be performed.

The survey is, however, to include all the operations required in connection with an intermediate survey of the hull and a bottom survey.

3.3.2 All ceiling and limber boards are to be removed; in addition, if considered necessary by the Surveyor, a sufficient amount of the outer shell planking and inner sparring is to be removed to enable a close examination of the frames to be carried out.

3.3.3 Any surfaces in contact with rust are to be well scraped and the outside surface of the shell planking, from the light waterline to the covering boards, is to be well cleaned and scraped.

3.3.4 The condition of fastenings is to be checked and, if considered necessary by the Tasneef Surveyor, a sufficient number of fastenings is to be drawn to enable their condition and that of the adjacent timber to be thoroughly checked. In this connection, particular attention is to be given to iron fastenings, especially in way of the waterline, and fastenings made of copper or yellow metal are to be tested, as far as practicable, and renewed when found to be broken or excessively worn.

3.3.5 The sheerstrake planking is to be tested by drawing a sufficient number of treenails, or by boring if no treenails are fitted; the holes resulting from the latter are subsequently to be closed by treenails or bolts.

3.3.6 If the keel and centre keelson are connected by iron fastenings, a sufficient number of these fastenings is to be drawn to check their condition; where this is impracticable, additional fastenings, as required by the Surveyor, are to be fitted in the connection of keel with centre keelson, of stem and sternpost with aprons and inner sternposts, and also in the connection of other main structural members.

3.3.7 Particular attention is to be given to the examination of breasthooks, frames, beams (particularly at their ends), knees, hawse timbers, knight heads, transoms and all fore and aft structural members.

3.3.8 If visual examination or testing by sounding and boring reveals rot or decay due to woodworm, the affected areas and adjacent timbers are to be closely inspected and, if necessary for the purpose, additional parts are to be removed in order to decide the extent of renewal required.

3.3.9 Bulwarks, bulwark stays, guard-rails and similar fittings, and superstructures in general are to be examined in order to check their condition.

3.3.10 Anchors and chain-cables are to be examined in accordance with the requirements in Pt A.

3.3.11 Rudder and steering arrangements are to be carefully examined and, if considered necessary for the purpose, the rudder is to be unshipped; rod and chain gears are to be examined as required for Class renewal surveys of steel yachts.

3.4 Class renewal survey No. 2

3.4.1 The requirements for class renewal survey No. 1 are to be complied with, together with those in [3.4.2] to [3.4.5] below.

3.4.2 The whole of the internal structure and planking is to be cleaned and scraped.

3.4.3 Particular attention is to be given to the condition of the upper deck or weather decks; planks showing evident signs of wear are to be bored, and renewed either wholly or in part when the deterioration exceeds 20 mm.

3.4.4 The windlass and other items of deck machinery are to be examined and dismantled as deemed necessary by the Tasneef Surveyor.

3.4.5 The anchors and chain-cables are to be examined.

3.5 Class renewal survey No. 3

3.5.1 The requirements for class renewal surveys No. 1 and No. 2 are to be complied with, together with those in [3.5.2] and [3.5.3] below.

3.5.2 Several lengths of covering boards, waterways and inner waterways are to be removed as considered necessary by the Surveyor, in order to carefully check the condition of the timber in way of the ends of beams and frames.

3.5.3 Superstructures and erections are to be scraped, particularly in those positions which are liable to greater deterioration, and parts are to be removed as required for renewal and/or repair.

APPENDIX 6 CLASS REQUIREMENTS AND SURVEYS OF LAID-UP YACHTS

1 General

1.1

1.1.1 In order to maintain its class during a normal operation period, a yacht is to be submitted to the surveys described in Ch 2, Sec 2 at their due dates and to the satisfaction of the Society, and is to be free of overdue surveys and conditions of class during the considered period.

1.1.2 When a yacht stops trading and is put out of commission for a certain period, i.e. is laid-up, the normal survey requirements may no longer apply provided that the Owner notifies the Society of this fact. The Owner is also to submit a lay-up maintenance program to the Society for approval.

1.1.3 The lay-up maintenance program includes:

- the safety conditions to be kept throughout the lay-up period
- the measures taken to preserve the maintenance of the yacht throughout the lay-up period
- the survey requirements to be complied with for lay-up, maintenance of class in lay-up and re-commissioning.

2 Safety conditions

2.1

2.1.1 Power supply

Adequate power supply is to be supplied, or readily available, all around the clock, either from independent means on board the yacht or from shore.

The following safety conditions are to be kept throughout the lay-up period.

2.1.2 Manning

Watch personnel are to be provided. The number of the watch personnel will depend on the size of the yacht, the lay-up site and mooring arrangements, the shore assistance available in case of fire, leakage or flooding, the maintenance required to provide adequate preservation. A permanent shore communication installation (radio, telephone) is also to be available.

2.1.3 Fire protection and fire fighting

Automatic fire alarm systems, where provided, are to be in working order and in operation.

2.1.4 Protection against explosion

All flammable materials, sludge, etc. are to be removed from the yacht's bilge, tank tops, double bottom tanks, engine room, pump rooms and similar spaces.

Hot work is not be carried out during lay-up, unless special precautionary measures are taken.

2.1.5 Safety equipment

All the equipment usually recommended for the safety of the watch personnel is to be provided, kept in working order and tested regularly.

The usual life-saving equipment such as liferafts, life-buoys, breathing apparatus, oxygen masks and distress signals is to be provided and made accessible.

The requirements of the flag Administration and of the local port authorities of the lay-up site are usually to be applied.

2.1.6 Emergency power

The emergency source of power, emergency generator and/or emergency air compressor are to be kept in working order and tested weekly.

3 Preservation measures for lay-up and maintenance

3.1 General

3.1.1 A lay-up log-book is to be kept on board, in which the maintenance work and tests carried out during the lay-up period are to be entered with the corresponding dates. The nature and frequency of the maintenance, inspections and tests are also to be defined in the lay-up log book.

3.1.2 The following measures for preservation and maintenance during the lay-up period are to be taken by Owners according to the type of yacht, hull equipment, machinery installations and the specific cases of lay-up conditions.

3.2 Exposed parts of the hull

3.2.1 Underwater parts of the hull are to be protected against corrosion. It is advisable to provide an impressed current cathodic protection system where the quantity of corrosive waste discharge is particularly high. When such systems are provided they are to be serviced and checked at regular intervals. The condition of sacrificial anodes is to be evaluated at the annual lay-up condition surveys.

3.2.2 The coating of the hull above the waterline, exposed decks, access doors or covers on exposed decks, and hatch covers is to be maintained in satisfactory condition.

All accesses leading to internal spaces are to be kept closed.

All vent pipes and ventilation trunks are to be kept closed.

3.3 Internal spaces

3.3.1 Ballast tanks are to be kept either full or empty. When ballast spaces are kept filled with sea water, special care is to be taken to keep such spaces topped up and protected against corrosion. When provided, sacrificial anodes are to be renewed when deemed necessary. The topping up is to be regularly verified.

3.3.2 Chain lockers are to be drained, cleaned and kept dry. Coating with bituminous paint is recommended.

3.3.3 Fuel oil and lubricating oil tanks are to be drained regularly.

Lubricating oil analysis is to be performed regularly and the oil renewed when the result is not satisfactory. Prior to being refilled, tanks are to be cleaned.

Empty lubricating oil tanks are to be cleaned and kept dry.

Fresh water or distilled water tanks are to be kept full or empty. Empty tanks are to be cleaned and kept dry. Where cement wash is used as a coating, this is to be examined and, if necessary, repaired prior to filling.

3.3.4 The bilge and tank top in engine rooms are to be cleaned and kept dry.

Hull sea inlet and outlet valves not in use are to be kept closed.

3.4 Deck fittings

3.4.1 The windlass, capstans and winches are to be regularly greased and turned once a week.

All wire cables are to be kept greased.

Visible parts of chains are to be coal-tarred and examined regularly.

Chocks and hawse pipes are to be coated with bituminous paint or equivalent if deemed necessary.

Electrical machinery and navigational equipment are to be protected by watertight covers.

3.5 Machinery

3.5.1 Machinery spaces

The air temperature inside the machinery spaces is normally to be kept above 0°C.

Humidity is to be kept as low as possible and within acceptable limits.

3.5.2 Machinery - General

Exposed mechanical parts of machinery are to be greased.

All rotating machinery such as diesel engines, reciprocating engines, pumps, turbines, electric motors and generators are to be turned at regular intervals with a limited number of revolutions (the lubricating oil system should be put in operation or proper priming applied). Units are not to be stopped in the same position as the previous one.

Bearing boxes are to be emptied, cleaned and refilled with new oil.

3.5.3 Main turbines

Turbines are to be kept dry.

All steam inlets are to be sealed.

Expansion arrangements (sliding feet) are to be suitably greased.

Electric heaters are to be put inside the turbines. Heat drying is to be made in open circuit, all valves shut and gland closing devices withdrawn.

Turbines are to be turned weekly, the lubricating oil system being put in service. The shaft line is to be stopped after turning an integer number of revolutions plus one quarter of a revolution.

3.5.4 Reduction gears

For large reduction gears, a fan activating the circulation of hot air in closed circuit with air hoses is to be fitted (intake at lower part of casing and discharge at upper part).

3.5.5 Auxiliary turbine-driven machinery

Stators are to be drained and kept dry.

Shaft sealing glands are to be lubricated.

Lubricating oil is to be analysed and renewed when deemed necessary. Prior to oil renewal, the oil casings are to be cleaned.

Exhaust steam pipes are to be kept dry.

Stuffing boxes are to be dismantled.

Turbines are to be turned weekly an integer number of revolutions plus one quarter of a revolution.

3.5.6 Condensers and heat exchangers

Condensers and heat exchangers are to be drained and kept dry.

Desiccant is to be placed in steam spaces.

Water sides are to be washed with fresh water.

The condition of the zinc anodes is to be periodically checked.

When tubes are fitted with plastic or fibre packing, water sides are to be filled with alkaline distilled water.

When tubes are expanded or fitted with metal packing, water sides are to be provided with desiccants and kept dry.

3.5.7 Auxiliary machinery

Air receivers are to be drained, opened up and cleaned. Pressure relief valves are to be cleaned and slightly lubricated.

Air compressor crankcases are to be drained, cleaned and refilled with clean oil. Cylinders and valves are to be lubricated. Coolers are to be drained and dried. Air drains are to be opened and the system dried.

Air start lines are to be drained and dried.

Hot-wells/return tanks are to be drained and dried.

De-aerators are to be drained and dried.

Feed pumps and extraction pumps are to be drained and dried.

Air ejectors are to be drained and dried.

Main circulation pumps are to be drained and dried.

Evaporators are to be drained, cleaned and dried.

3.5.8 Piping

Pipes not in use are to be drained and kept dry.

3.5.9 Diesel engines

Daily tank fuel oil outlet pipes and all injection equipment are to be filled with filtered gas oil.

Fresh water circuits are to be filled with water mixed with rust inhibitors. Fresh water pH is to be checked monthly.

Oil of hydraulic regulators is to be replaced.

Sea water cooling pipes are to be drained.

Crankcases are to be provided with desiccant.

Starting valves are to be lubricated (internally and externally).

Motor oil is to be sprayed in cylinders and on all external parts liable to corrosion.

Cams and cylinders are to be motor oil sprayed monthly.

Turbo-compressor/charger ball bearings are to be oil sprayed and rotated for an integer number of revolutions plus one quarter of a revolution.

Engine air inlets and exhaust gas pipes are to be sealed.

Scavenge spaces are to be cleaned

Engines are to be turned weekly.

3.5.10 Shaft lines

Shaft lines are to be coated with grease.

Shaft bearing cooling pipes are to be drained.

For sea water lubricated propeller shafts, the packing gland of the engine room stuffing box is to be tightened.

For oil lubricated sterntubes, lubricating oil is to be analysed and renewed if not satisfactory. The oil level in the tank is to be verified regularly.

Propeller shaft lines are to be rotated an integer number of revolutions plus one quarter of a revolution.

3.6 Electrical installations

3.6.1 Main and secondary switchboards, sub-feeder panels, fuse panels and starters are to be made tight. Desiccant is to be provided.

Contacts of relays, breakers and switch-breakers are to be coated with neutral vaseline.

Bearings of generators are to be cleaned of old grease and protected with new oil or grease.

Carbon brushes are to be lifted off their commutations.

3.6.2 Electrical insulation of each item is to be kept at a minimum 200000 W and general insulation is to be not less than 50000 W. Local electric heating may be necessary to improve the level of insulation, particularly in the generators/alternators and large motors.

A megger test is to be performed regularly.

3.7 Steering gear

3.7.1 Exposed mechanical parts are to be greased or oil sprayed.

For electrical parts the same preservation measures given in [3.6] are to be taken.

It is recommended that the steering gear should be operated monthly.

3.8 Boilers

3.8.1 Smoke sides of boilers are to be swept, washed clean with basic hot water and hot air dried.

3.8.2 Water and steam sides should preferably be preserved using the dry method, keeping the moisture at the lowest possible level, the ideal level being between 30% and 35%. It is advisable to ensure that no residual water remains to cause rapid corrosion. Drum doors are to be kept closed.

In other cases, it is advisable to keep the boilers, superheaters and economisers filled with water having a pH around 10,5. Hydrazine hydrate treatment of the water is preferable to reduce risks of corrosion caused by dissolved oxygen. The water is to be regularly analysed.

3.8.3 Air heaters are to be cleaned and kept dry.

Uptake, shell and fan outlets are to be cleaned and kept closed with watertight hoods.

Burners are to be dismantled, and atomisers greased.

Desiccant is to be provided in furnaces where deemed necessary.

Expansion arrangements (sliding feet) are to be suitably greased.

The internal condition of boilers is to be checked every three months.

3.8.4 Boilers may also be preserved sealed with inert gas (nitrogen), provided that cocks and valves are tight and the installation allows an internal pressure of at least 0,05 bar to be maintained to prevent air penetration. Regular checks of the overpressure are to be carried out and results recorded in the log-book.

3.9 Automation equipment

3.9.1 Recommendations for electronic components are the same as those given for electrical installations.

For pneumatic parts the manufacturers' recommendations are to be followed and the system is to be checked regularly.

Pressure, temperature or level sensors are generally not affected by damage when not used. However, when available, the manufacturers' recommendations are to be followed.

4 Lay-up site and mooring arrangements

4.1 General

4.1.1 The choice and suitability of the lay-up site, as well as the type of mooring conditions, the mooring arrangements and their efficiency during the lay-up period remain the responsibility of the Owner.

However, at the Owner's request, the mooring arrangement may be reviewed by the Society.

4.2 Recommendations for the lay-up site

4.2.1 The following recommendations are to be considered by Owners regarding the choice and suitability of the lay-up site.

The site should be:

- sheltered from open sea, strong currents and waves
- not exposed to whirling winds or turbulent tidal waves
- not exposed to moving ice
- clear of corrosive waste waters
- provided with adequate yacht/shore communications.

4.3 Recommendations for the mooring arrangements

4.3.1 The following recommendations are to be considered by Owners with respect to the mooring arrangements:

- ground holding should be adequate
- vessels laid-up to buoys or anchored should be moored in such a way as to be prevented from swinging with normal wind and tidal changes
- chain cables should not be subject to cross-contact or twisting and stern anchorage should generally be provided
- laid-up yachts should be in ballast condition in order to reduce the effects of wind. Due consideration should be given to the still water bending moment. For guidance, normal ballast draft should be roughly between 30% and 50% of the maximum draft.

4.3.2 Yachts should normally be moored singly. However, when several yachts are moored together, the following provisions are to be made:

- yachts are to be moored bow to stern
- yachts are to be of approximately the same size
- the number of yachts moored together is, in principle, not to exceed six
- breast-lines are to be of similar elasticity
- fenders are to be provided.

4.4 Review of the mooring arrangements

4.4.1 As indicated in [4.1.1], at the Owners' request, the mooring arrangements may be reviewed by the Society.

4.4.2 The proposal for the mooring arrangements is in such case to be submitted by the Owner and is to include the following information.

a) Mooring site:
   - geographical area (to be specified on a map)

- characteristics of the sea bottom
- water depth
- preferential angular sectors (effects of wind / tide / current) indicated according to statistical studies
- wave characteristics (amplitude, periods)

b) Geometry of mooring arrangements:
- yacht's position and direction
- shore anchorage
- diagram showing mooring equipment (fore and aft)
- angle between chain cables and yacht's centreline

c) Characteristics of mooring equipment:
- maximum holding strength of each anchor
- type of mooring lines (chains, cables, sinkers, etc.)
- length of each section
- weight of each section
- mechanical characteristics of each section (breaking load)
- weight of sinkers.

4.4.3 On completion of the installation, the mooring arrangements are to be inspected by the Society. When the yacht is anchored, the underwater installation is to be inspected by a diver whose report is to be presented to the Society.

4.4.4 It is the responsibility of the Owners to ascertain the efficiency of the mooring arrangements during the lay-up period. The mooring arrangements are to be re-examined at regular intervals (at least each year when the yacht is anchored) and when abnormal weather conditions occur at the lay-up site.

5 Surveys

5.1 Laying-up survey

5.1.1 At the beginning of the lay-up period a laying-up survey is to be carried out whose scope is to verify that the safety conditions, preservation measures, lay-up site and mooring arrangements are in accordance with the program agreed by the Society.

5.1.2 Upon satisfactory completion of this survey, an endorsement to confirm that the yacht has been placed in lay-up is entered on the Certificate of Classification, which is subsequently to be kept on board.

5.2 Annual lay-up condition survey

5.2.1 As described in Ch 2, Sec 2, [13], an annual lay-up condition survey is to be performed in lieu of the normal annual class surveys. The purpose of this survey is to ascertain that the lay-up maintenance program implemented is continuously complied with.

5.2.2 It is to be checked that the arrangements made for the lay-up are unchanged and that the maintenance work and tests are carried out in accordance with the maintenance manual and recorded in the lay-up log-book.

5.2.3 Upon satisfactory completion of the survey, the Certificate of Classification is endorsed.

5.3 Re-commissioning survey

5.3.1 Owners are to make the necessary arrangements to remove the temporary lay-up installations provided for preservation measures and the protective materials and coatings (oil, grease, inhibitors, desiccants), before the survey is commenced.

It is the Owners' responsibility to verify that the yacht parts that are not covered by class are reactivated in satisfactory operational condition.

5.3.2 The scope of the re-commissioning survey is to include:

- a general examination of the hull, deck fittings, safety systems, machinery installations (including boilers whose survey is not due) and steering gear
- all periodical surveys due at the date of re-commissioning or which became overdue during the lay-up period

- dealing with the conditions of class due at the date of re-commissioning or which became due during the lay-up period.

In all cases where the Owner elects to carry out the “next due” renewal survey, the due periodical hull and machinery surveys, due or which become overdue during the lay-up period, will be replaced by this one.

5.3.3 For the hull the following is to be carried out:

- examination of shell plating above the waterline, deck plating, hatch covers and coamings
- examination of load line items
- overall survey of representative ballast tanks when the lay-up period does not exceed two years
- overall survey of all ballast tanks when the lay-up period is two years and over
- function tests of bilge and ballast systems.

5.3.4 For the deck fittings the following is to be carried out:

- where possible, examination of deck piping under working pressure
- function tests of class items
- checking inert gas installation under working condition after inspection of water seal and function test of deck non-return valve and pressure/vacuum valves.

5.3.5 For machinery installations the following is to be checked:

- the analysis of lubricating oil of main engines, auxiliary engines, reduction gears, main thrust bearings and sterntube
- the general condition of crankcase, crankshaft, piston rods and connecting rods of diesel engines
- the crankshaft deflections of diesel engines. In addition when engines have been laid-up for more than two years, one piston is to be disconnected and one liner is to be removed for examination. Dismantling is to be extended if deemed necessary
- the condition of blades of turbines through the inspection doors
- the condition of the water side of condensers and heat exchangers
- the condition of expansion arrangements
- the condition of reduction gears through the inspection doors
- the condition after overhauling of pressure relief devices
- the test of bilge level alarms, when fitted.

5.3.6 The main and emergency electrical installations are to be tested. The parallel shedding of main generators and main switchboard safety devices are to be checked. A megger test of the electrical installation is to be performed.

5.3.7 For the fire prevention, detection and fire-fighting systems, the following is to be examined and/or tested:

- fire detectors and alarms.

5.3.8 The automated installation is to be checked for proper operation.

5.3.9 For other specific classed installations, the Owners are to submit a survey program to the Society.

5.3.10 On completion of the above surveys and tests, sea trials are to be performed in the presence of a Surveyor of the Society.

The sea trials are to include:

- verification of the satisfactory performance of the deck installations, main propulsion system and essential auxiliaries, including a test of the safety devices
- an anchoring test
- complete tests of steering gear
- full head and full astern tests
- tests of automated machinery systems, where applicable

5.3.11 Upon satisfactory completion of the surveys, an endorsement to confirm the carrying out of all relevant surveys and the re-commissioning of the yacht is entered on the Certificate of Classification.

Chapter 4

SCOPE OF SURVEYS RELATED TO ADDITIONAL CLASS NOTATIONS

SECTION 1 GENERAL

1 General

1.1 Application

1.1.1 The purpose of this Chapter is to give details on the scope of surveys of specific equipment and systems fitted on board the yacht, which are covered by an additional class notation. The scope of these surveys provides the requirements to be complied with for the maintenance of the relevant additional class notation.

1.1.2 These specific requirements are additional to those laid down in Chapter 3. These surveys are to be carried out at intervals as described in Ch 2, Sec 2, as far as possible concurrently with the surveys of the same type, i.e. intermediate or class renewal survey.

1.1.3 The equipment and systems are also to be submitted to occasional survey whenever one of the cases indicated in Ch 2, Sec 2, [5] occurs.

1.1.4 Where specific requirements are given in this Chapter for the class renewal survey, they are additional to the applicable requirements for the annual survey.

1.1.5 For the assignment of the additional class notations, yachts are to be submitted to an admission to class survey as described in Ch 2, Sec 1, [2] and Ch 2, Sec 1, [3] for new and existing installations, respectively, as applicable.

2 Additional class notations subject to additional surveys

2.1 Application

2.1.1 The specific requirements detailed in this Chapter are linked to the additional class notation(s) assigned to the yacht. Where a yacht has more than one additional class notation, the specific requirements linked to each ad-ditional class notation are applicable as long as they are not contradictory.

2.1.2 Tab 1 indicates which additional class notations are subject to specific requirements, and in which Section and/or Article they are specified.

Table 1 : Additional class notations for which specific survey requirements are applicable

Additional class notation	Section or Article applicable in this Chapter	Type of surveys affected by these specific requirements
Automated machinery system **AUT-UMS (Y)**	Sec 2	Annual and renewal survey
Sea and air pollution prevention **GREEN-PLUS (Y)** **GREEN-PLUS (Y) (GOLD)** **GREEN-PLUS (Y) (PLATINUM)**	Sec 3	Annual and renewal survey
Comfort on board **COMF (Y)**	Sec 4	Class renewal survey
Monitoring equipment **MON-SHAFT (Y)**	Sec 5	Annual and renewal survey
Damage stability **DMS**	Sec 6	Annual and renewal survey
Secure yacht **SECURE YACHT DESIGN**	Sec 8	Annual survey

Additional class notation	Section or Article applicable in this Chapter	Type of surveys affected by these specific requirements
Navigation in ice Class notations for navigation in ice (ICE CLASS): • **ICE CLASS IA SUPER** • **ICE CLASS IA** • **ICE CLASS IB** • **ICE CLASS IC** • **ICE CLASS ID** • **ICE** Class notations for navigation in ice (POLAR CLASS): • **POLAR CLASS PC1** • **POLAR CLASS PC2** • **POLAR CLASS PC3** • **POLAR CLASS PC4** • **POLAR CLASS PC5** • **POLAR CLASS PC6** • **POLAR CLASS PC7**	Sec 9	Class renewal survey
REMOTE SURVEYABLE YACHT (REMOTE)	Sec 13	As applicable in accordance with the related Articles in Sec 13
Planned maintenance system **PMS**	Sec 15	The scope and periodicity of surveys are stipulated by specific requirements given in Part F, Chapter 15

SECTION 2 AUTOMATED MACHINERY SYSTEMS

1 General

1.1

1.1.1 The requirements of this Section apply to yachts which have been assigned the following additional class notation **AUT-UMS (Y)** and **AUT-CCS (Y)** related to **automated machinery systems** as described in Ch 1, Sec 2, [6.2].

2 Annual survey

2.1

2.1.1 The Owner or his representative is to declare to the attending Surveyor that no significant modifications have been made without prior approval by the Society.

2.1.2 The annual survey is to include:

- an examination of the engineers' log-book to verify the proper operation of automation systems in the period subsequent to the last survey and measures taken to avoid repetition of any malfunctions or failures which have occurred during the same period
- a general examination of the control systems covered by the notation, including a random check of the proper operation and calibration of main measuring, monitoring, alarm, and automatic shut-off devices
- a check of the fire detectors
- a check of the bilge flooding alarms
- a running test which may be also performed by a spot check method.

3 Class renewal survey

3.1

3.1.1 The requirements given in [2] for annual survey are to be complied with. An additional program of examinations, checks and tests is to be devised in agreement with the Owner and based on the operational data and experience of previous surveys. This program is to include verification of the calibration of instruments and testing of the control and safety functions of the machinery. The Owner is to produce evidence that all these checks and tests have been carried out and this will be verified by the Surveyor at random. In addition, the proper operation of the control system of propulsion machinery is to be checked during sea trials.

SECTION 3 POLLUTION PREVENTION

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the following additional class notations related to pollution prevention systems, as described in Ch 1, Sec 2, [6.3]:

- **GREEN PLUS (Y)**
- **GREEN PLUS (Y) (GOLD)**
- **GREEN PLUS (Y) (PLATINUM)**

2 Annual and class renewal survey

2.1

2.1.1 The survey is, as far as practicable, to include the verification and checks required here below:

- verification that a responsible person is appointed as Ship Environmental Manager and is present on board,
- verification that all the additional systems and components involved in the yacht's environmental index calculation and listed in the Green Plus Record of Equipment are well maintained and in good working condition
- verification that all the additional procedural means involved in the yacht's environmental index calculation and listed in the Green Plus Record of Equipment are followed and documented by appropriate recording
- verification that adequate training on environmental issues is planned, carried out and documented for all the persons on board having influence on the environmental behavior of the yacht.

SECTION 4 COMFORT ON BOARD

1 General

1.1

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **COMF (Y)**, as described in Ch 1, Sec 2, [6.4], related to passengers and crew comfort on board yachts classed.

2 Renewal survey

2.1

2.1.1 On the occasion of a class renewal survey, at the discretion of Tasneef, or whenever deemed necessary by the Owner, the maintenance of comfort characteristics may be subject to verification. In these cases, remeasurements relating to vibrations and sound pressure level are to be carried out both during navigation and at berth in the environmental conditions set out in Pt F, Ch 4, Sec 1.

SECTION 5 MONITORING EQUIPMENT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notations **MON-SHAFT (Y)** related to tailshaft monitoring equipment as described in Ch 1, Sec 2, [6.5].

2 MON-SHAFT (Y)

2.1 Tailshaft survey

2.1.1 When the records of the tailshaft bearing temperature readings are checked and doubts arise, the Surveyor may require verification of the accuracy of the gauging devices.

SECTION 6 DAMAGE STABILITY

1 General

1.1

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notations **DMS** as described in Ch 1, Sec 2, [6.6].

2 Intermediate survey

2.1

2.1.1 The intermediate survey is to include the same inspections as stated in Ch 3, Sec 1, [2.3] for the annual survey. In addition, is to be checked that requirements concerning any appliances (e.g. crossover systems) and other provisions of the approved stability documentation are duly fulfilled and the relevant systems are in working order.

3 Class renewal survey

3.1

3.1.1 The class renewal survey is to include the same inspections as for the intermediate survey.

SECTION 7 INWATERSURVEY

1 General

1.1

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **in water survey** related to the installation of devices facilitating the in water survey as described in Ch 1, Sec 2, [6.7].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 7 Sec 1 is applicable.

SECTION 8 SECURE YACHT

1 General

1.1

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **SECURE YACHT DESIGN** related to the installation of security equipment as described in Ch 1, Sec 2, [6.8].

2 Periodical survey

2.1 Annual survey

2.1.1 A periodical survey is to be carried out in line with periodical class surveys.

The scope of the periodical survey is to verify that the security system arrangements included in the “Record of Security Equipment” are in a satisfactory and efficient general condition and are properly maintained.

SECTION 9 ICE CLASS AND POLAR CLASS

1 General

1.1

1.1.1 The requirements of this Section apply to yachts which have been assigned one of the following additional class notations related to navigation in an ice environment, as described in Ch 1, Sec 2, [6.9]:

Class notations for navigation in ice (ICE CLASS):

- **ICE CLASS IA SUPER**
- **ICE CLASS IA**
- **ICE CLASS IB**
- **ICE CLASS IC**
- **ICE CLASS ID**
- **ICE**

Class notations for navigation in ice (POLAR CLASS):

- **POLAR CLASS PC1**
- **POLAR CLASS PC2**
- **POLAR CLASS PC3**
- **POLAR CLASS PC4**
- **POLAR CLASS PC5**
- **POLAR CLASS PC6**
- **POLAR CLASS PC7**

2 Class renewal survey

2.1 Thickness measurements

2.1.1 Additional systematic thickness measurements are required in the areas where strengthening for navigation in an ice environment has been applied in accordance with the requirements in Part F, Chapter 9 (ICE CLASS) or Part F, Chapter 10 (POLAR CLASS), as per Tab 1.

2.2 Sea chests

2.2.1 During the bottom survey in dry condition which is to be carried out concurrently with the class renewal survey (see Ch 3, Sec 5, [2.1]), the specific arrangements related to sea chests protected against ice blocking, such as heating coil and cooling water discharge piping, are to be checked.

Table 1

Age of yacht (in years at time of class renewal survey)		
age ≤ 5	5 < age ≤ 10	age > 10
	selected plates	all plates
		selected internal frames, stiffeners and stringers

SECTION 10 ENHANCED ANCHORING EQUIPMENT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the following additional class notations related to anchoring system, as described in Ch 1, Sec 2, [6.10]:

- **ENHANCED ANCHORING EQUIPMENT (Y)**
- **ENHANCED ANCHORING EQUIPMENT (Y) (GOLD)**
- **ENHANCED ANCHORING EQUIPMENT (Y) (PLATINUM)**

2 Annual and class renewal survey

2.1

2.1.1 The survey is, as far as practicable, to include the verification and checks of the good conditions of the anchors and anchor chains.

SECTION 11 DOLPHIN

1 Renewal survey

1.1

1.1.1 Verification that the yacht has not been subjected to modifications, refitting or major repairs that may affect its level of comfort/noise emission.

In particular, the following items have to be verified:

- main engine(s)
- propulsion shafting and its components such as reduction gear (if fitted), intermediate bearings, etc.
- propeller(s)
- air-conditioning System(s) and Ventilation System(s), including their intake and delivery ducts or plenum.

SECTION 12 HYBRID

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **hybrid** assigned to yachts whose propulsion plant consists of two or more sources of power as described in Ch 1, Sec 2, [6.12].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 12, Sec 1 is applicable.

SECTION 13 REMOTE

1 Surveys

1.1 Annual and class renewal survey

1.1.1 For maintaining the additional class notation **REMOTE**, the devices for live-streaming and the Connectivity Kit are to be surveyed and found to be available on board and operational. The presence on board of at least one of the yacht's Officers provided with the Certificate of Competency requested in Pt F, Ch 13, Sec 1, [2.4] is also to be ascertained.

SECTION 14 WAPS

1 General

1.1 Application

1.1.1 Pt A, Ch 5, Sec 12, [43] of Tasneef Rules for the Classification of Ships applies.

SECTION 15 PLANNED MAINTENANCE SYSTEM

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **PMS** related to the adoption of an approved planned maintenance system as described in Ch 1, Sec 2, [6.15].

SECTION 16 CYBER YACHT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **CYBER YACHT** assigned to yachts provided with cyber secure systems as described in Ch 1, Sec 2, [6.16].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 16, Sec 1 is applicable.

SECTION 17 DIGITAL YACHT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **DIGITAL YACHT** assigned to yachts provided with digital systems as described in Ch 1, Sec 2, [6.17].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 17, Sec 1 is applicable.

SECTION 18 BIOFUEL YACHT

1 General

1.1 Application

1.1.1 1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **BIOFUEL YACHT** assigned to yachts fuelled by biofuels as described in Ch 1, Sec 2, [6.18].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 18, Sec 1 is applicable.

SECTION 19 GAS FUELLED YACHT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **GAS FUELLED YACHT** assigned to yachts fuelled by gas as described in Ch 1, Sec 2, [6.19].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 19, Sec 1 is applicable.

SECTION 20 LPG OR NH_3 FUELLED YACHT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **LPG** or **NH_3 Fuelled YACHT** assigned to yachts fuelled by LPG or NH_3 as described in Ch 1, Sec 2, [6.20].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 20, Sec 1 is applicable.

SECTION 21 HYDROGEN FUELLED YACHT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **Hydrogen Fuelled YACHT** assigned to yachts fuelled by hydrogen as described in Ch 1, Sec 2, [6.21].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 21, Sec 1 is applicable.

SECTION 22 METHYL/ETHYL ALCOHOL FUELLED YACHT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **Methyl/Ethyl Alcohol Fuelled YACHT** assigned to yachts fuelled by Methyl or Ethyl Alcohol as described in Ch 1, Sec 2, [6.22].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 22, Sec 1 is applicable.

SECTION 23 BATTERY POWERED YACHT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **Battery Powered YACHT** assigned to yachts powered by Batteries as described in Ch 1, Sec 2, [6.23].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 23, Sec 1 is applicable.

SECTION 24 FUEL CELL POWERED YACHT

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation **Fuel Cell Powered YACHT** assigned to yachts powered by Fuel Cells as described in Ch 1, Sec 2, [6.24].

2 Surveys

2.1

2.1.1 No specific survey are required. Pt F, Ch 24, Sec 1 is applicable.

SECTION 25 RIG

1 General

1.1 Application

1.1.1 The requirements of this Section apply to yachts which have been assigned the additional class notation assigned to yachts with rig certified in accordance with Ch 1, Sec 2, [6.25].

2 Surveys

2.1

2.1.1 The surveys required are reported in the Rules for the Certification of Sailing Rigs.