

RULES
FOR THE CLASSIFICATION OF
SHIPS

PART 1 – GENERAL REQUIREMENTS
January 2020

CROATIAN REGISTER OF SHIPPING

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By the decision of the General Committee to the Croatian Register of Shipping,

RULES FOR THE CLASSIFICATION OF SHIPS
Part 1 – GENERAL REQUIREMENTS
edition January 2020

have been adopted on 20th December 2019 and shall enter into force on 1st January 2020

REVIEW OF AMENDMENTS IN RELATION TO PREVIOUS EDITION OF THE RULES

RULES FOR THE CLASSIFICATION OF SHIPS

Part 1 - GENERAL REQUIREMENTS

Chapter 1 – General information

All major changes in respect to Rules for the classification of ships, Part 1 – General requirements, Chapter 1 – General information, edition January 2019, throughout the text are shaded (if any).

Items not being indicated as corrected have not been changed.

The grammar and print errors, have been corrected throughout the Rules and are not subject to above indication of changes.

The subject Chapter of this part of the Rules includes the requirements of the following international Organisations:

International Association of Classification Societies (IACS):

Unified Requirements (UR):

L2 (April 2013, rev. 2), Z7 (June 2016, rev. 25), Z11 (2015, rev. 5)

Procedural Requirements (PR):

PR1C (Jan 2016, rev. 5), PR11 (2010, rev. 1), PR29 (2009, rev. 0), PR31 (July 2014, rev. 1)

Unified Interpretations (UI):

HSC9 (corr. 1, Jan 2014), LL78 (corr. 1, Jan 2014), SC256 (June 2012), SC261 (May 2013),
MPC100 (June 2012), MPC104 (corr. 1, Jan 2014)

Chapter 1 **GENERAL INFORMATION**

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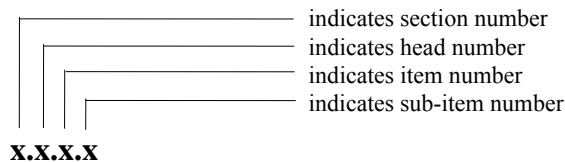
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1 THE RULES

1.1 Rules for the classification of ships (hereafter referred to as: the Rules) developed by the **CROATIAN REGISTER OF SHIPPING** (hereafter referred to as: the Register) are prescribing requirements for classification of ships on the basis of internationally adopted maritime standards.

1.2 The Rules are divided into parts, and exceptionally Part 1 is furthermore divided into chapters (see Figure 1.2-1).

Parts of the Rules (or Chapters for Part 1) are divided in sections, heads, items and sub-items. For this purpose a maximum of six digit decimal system has been adopted throughout, e.g.:



Title numbers of Parts of the Rules (and Chapters for Part 1) are given in page headers.

The cross-referencing within the text is as follows:

- .1 If the text is in the same Part and in the same Chapter of the Rules, e.g. *see requirements in 3.4.2.1* (i.e. down to sub-item number).
- .2 If the text is in the same Part, but in different Chapter of the Rules, e.g. *see requirements as stated in the Rules, Chapter 2 - Survey during construction and initial survey, 4.1* (i.e. down to head number).
- .3 If the text is in the Rules, but in another Part of the Rules, e.g. *see requirements as stated in the Rules, Part 25 – Metallic materials, 2.3* (i.e. down to head number).

The cross-reference for Figures, Tables and Formulas is as follows:

- .1 If the Table (Formula or Figure) is in the same Part and in the same Chapter of the Rules, e.g. *as shown in Table 3.4.2-1* (table number is composed of section number (3), head number (4), item number (2) and table number (1)).
- .2 If the Table (Formula or Figure) is in the same Part, but in different Chapter of the Rules, e.g. *as shown in the Rules, Chapter 1 - General information, Table 4.2.2-1*.
- .3 If the Table (Formula or Figure) is in the Rules, but in another Part of the Rules, e.g. *as shown in the Rules for tonnage measurement of sea-going ships, boats and yachts, 2*.

Scope of the Rules

1.3 The Rules are applicable, with no consideration of navigation area, to:

- .1 New ships.
- .2 Existing cargo ships, with no consideration of date of built if converted in passenger ships.
- .3 Existing ships, in cases of significant repairs, modifications, reconstruction or alternations of the equipment, as well as, when the purpose of the ship, navigation area or number of the passengers which the ship is allowed to carry has been changed, in extent deemed necessary by the Register considering each case separately.
- .4 Existing ships, except for those stated in 1.3.2 and 1.3.3, solely if it is explicitly specified in the Rules.
- .5 Floating units and technical floating units, in extent as deemed necessary by the Register considering each specific case separately.

1.4 The Rules are prescribing adopted standards for design, construction and maintenance related to:

- .1 Structural strength and where necessary the watertight integrity of all essential parts of hull and its appendages.
- .2 Safety and reliability of the propulsion and steering system and those features and auxiliary systems for establishing and maintaining basic conditions on board.

In addition to the above mentioned the Rules are prescribing requirements related to:

- .3 Stability.
- .4 Subdivision (additional notation).
- .5 Fire protection.
- .6 Refrigerating plant.

1.5 The Rules are not applicable to:

- .1 Mobile offshore drilling units.
- .2 Liquefied gas carriers.
- .3 Tankers for oil comprised with Condition Assessment Scheme (CAS) according to IMO Res. MEPC.94(46), as amended.

1.6 During Initial survey (first classification survey for the purpose of admission to class) of the existing ship, which has not been surveyed during construction by the Register, the following should be applied:

- .1 Requirements of the Rules of the classification society which supervised the ship during construction.
- .2 Requirements of the Rules of the losing classification society.
- .3 Requirements of the Rules of the Register which are related to existing ships.

NOTE: Apart from classification requirements, during Initial survey of the existing ship, the Register may also verify compliance of the ship with relevant statutory requirements, if so authorized by the Flag State Administration.

1.7 Compliance with the class related requirements as stated in the Rules does not relieve the Owner (Company), or any other interested party from compliance with any statutory requirement demanded by the Flag State Administration.

In the case of fittings, appliances, details or general finish of the ship, not covered by the Rules, but specially demanded by the Owner, the *Register* does not bear any consequences for possible discrepancy of such demands with Flag State Administration statutory requirements.

Adoption of the Rules

1.8 Rules are adopted by the *General Committee* of the *Register* on the basis of the decision of the *Technical Committee*.

1.9 If not explicitly stated otherwise, the new Rules, as well as the amendments to existing Rules, shall enter into force, after they have been adopted by the *General Committee* of the *Register*, on the date indicated on the inside page of the Rules or the in the relevant Chapter of the Rules.

As a general rule, the Rules are printed either in English, or in Croatian. Notwithstanding before stated, in cases of dispute, and when the Rules are exceptionally printed both in English and Croatian, English version should have precedence and should be taken as the relevant one, while the Croatian version should be considered as a translation only.

Application of the Rules

1.10 The applicable Rules for the assignment of class to a newbuilding are those being in force at the date of contract for construction, as specified in the "Request for survey during construction" (for the definition of date of contract for construction see 5.14).

Above stated is also applicable to existing ships when undergoing major conversions, or to the altered part of the ship in the case of partial alterations.

1.11 For ships in service requirements of the Rules related to class assignment, maintenance and withdrawal of class, are applicable from the date of their entry into force and are determined by the assigned main characters of class.

NOTE: For the purpose of the application of SOLAS and MARPOL regulations for newbuildings and ships in service refer to IMO MSC-MEPC.5/Circ.8 (*Unified interpretation of the application of regulations governed by the building contract date, the keel laying date and the delivery date for the requirements of the SOLAS and MARPOL Conventions*). For the definition date of delivery and keel laying date under SOLAS and MARPOL Conventions see 5.16 and 5.17 respectively.

Interpretation of the Rules

1.12 Competent interpretations of the requirements stated in the Rules, or in any other regulation published by the *Register*, are exclusively in jurisdiction of the Head Office, regardless of other possible interpretations of surveyors in the Branch offices.

In cases where detailed requirements are not given in the Rules, specific approval by the *Register* is to be based on the principles of the Rules, and is to give a safety standard equivalent to that of the Rules.

1.13 In general, criteria of the equivalence is applicable for the requirements of the Rules and according to that, any other mode or method of surveys, examinations, calculations or production processes equivalent to those stated in the Rules may be accepted.

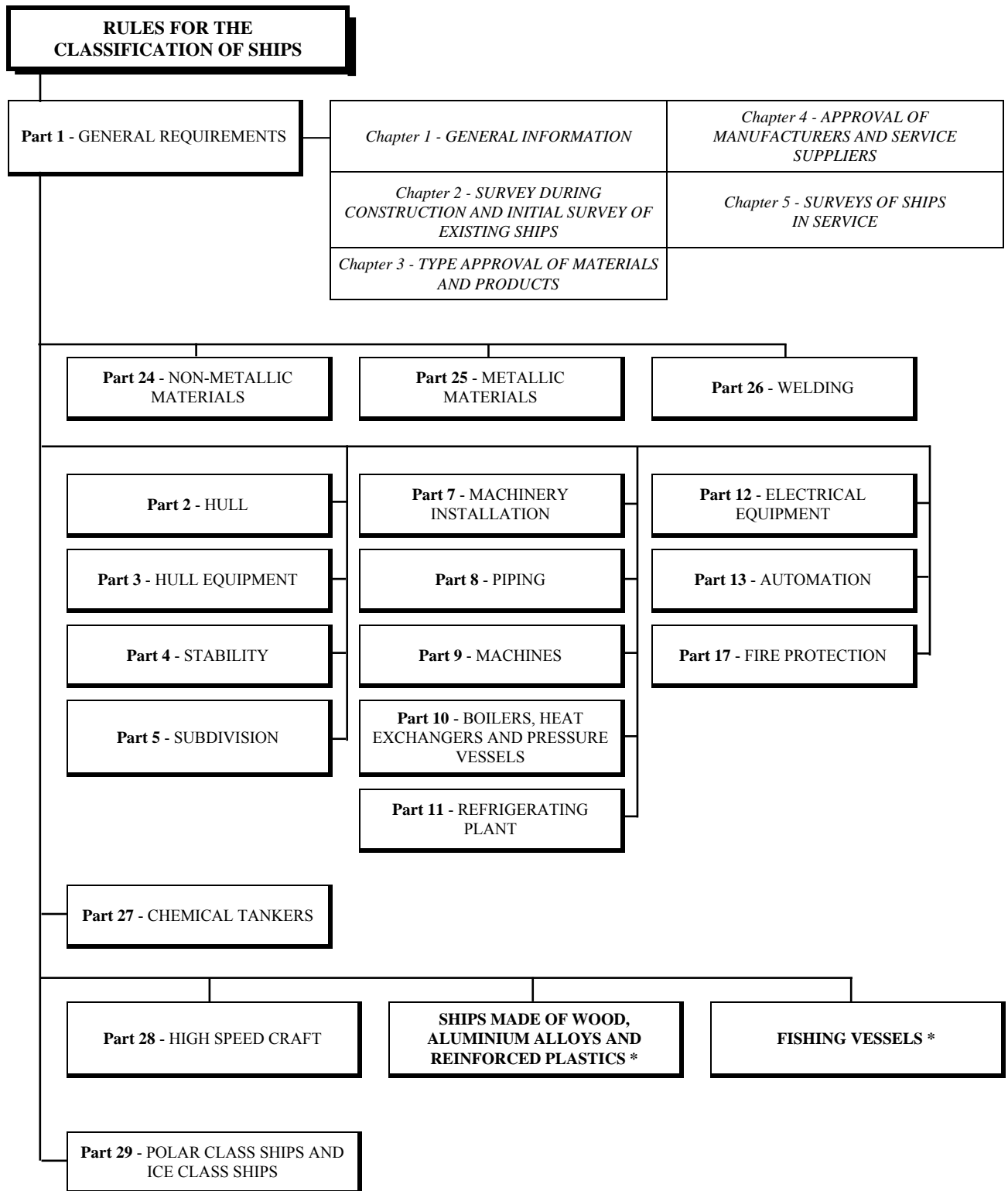
Acceptance of the above mentioned criteria is exclusively in jurisdiction of the Head Office and its approval in some cases may be subjected to special conditions.

Objections against conclusions and interpretations of the Register

1.14 Any objections against the line adopted by any of the *Register's* servants in fulfilling their duties or against the conclusions reached are to be raised to the *Register* by the interested party as soon as possible.

If interested parties are not satisfied with the final conclusions and interpretations by the *Register* the final arbitration lays upon the *Commission for appeal for classification and statutory certification of ships*, which is to be formed according to the regulation 39 of the *Charter* of the *Register*.

Figure 1.2-1
 Graphic layout of the *Rules for the classification of ships*



NOTE:

* Until publication of subject Parts of the Rules as classification rules corresponding Chapters of the Rules for statutory certification of ships made of wood, aluminium alloys and reinforced plastics and corresponding Chapters of the Rules for statutory certification of fishing vessels shall apply.

2 DEFINITIONS

- 2.1 IMO** - International Maritime Organisation.
- 2.2 IACS** - International Association of Classification Societies.
- 2.3 Classification** - in general it comprises all the activities and services rendered by the *Register* in accordance with the Rules.
- Classification of ships is conducted in accordance with the Rules and any other standards to which reference therein may be made.
- 2.4 Class term** - period of validity of the Certificate of class, i.e. time interval between two Renewal surveys (time interval may be up to 5 (five) years and depends upon the navigation area, building material, general condition, age, etc.).
- 2.5 Certificate of class** - certificate which proves compliance with the requirements of the Rules. In the Certificate of class are stated all main and additional characters of class assigned by the *Register*, including descriptive notes and service restrictions, if any.
- 2.6 Statutory certificates** - certificates issued under provisions of different IMO instruments (e.g. SOLAS 74, MARPOL 73/78, ILLC 66) or some other national certificates issued by the Flag State Administration or on its behalf.
- 2.7 Maritime Administration or Flag State Administration** - the Administration of the Government of the State whose flag the ship is entitled to fly.
- 2.8 To the satisfaction of the Administration** - as in various documents such interpretations are vaguely worded, the *Register* shall, when acting on behalf of a Flag State Administration, follow guidance issued by IMO (Resolutions, Circulars, etc.), or by IACS through Unified Interpretations (UI), unless Flag State Administration has instructed otherwise.
- 2.9 To the satisfaction of the Register** - expresses the state that corresponds to the requirements of the Rules or additional requirements imposed by the *Register*.
- 2.10 At the discretion of the Surveyor** - expresses that the opinion of the Surveyor responsible for the survey or testing shall be considered competent.
- 2.11 Additional requirements** - requirements not provided for by the Rules, but imposed by the *Register* during the survey.
- 2.12 Condition of class** - a requirement to the effect that specific measures, repairs, surveys, etc. are to be carried out within a specific time limit in order to retain class.
- 2.13 Recognized classification society** - IACS member classification society having valid agreement on mutual cooperation with the *Register*.
- 2.14 Recognised organisation (RO)** - organisation being authorised to act on behalf of the Flag State Administration of the Government of the State whose flag the ship is entitled to fly.

NOTE: In terms of EU regulations RO denotes the organization being recognized according to EU Regulation 391/2009 and EC Directive 2009/15/EC.

- 2.15 The Owner** - party having requested classification or having assumed ownership of a classed ship. In cases where owners have authorised another party to operate the ship on their behalf, such party is regarded as the Company.
- 2.16 Product** - machinery, arrangement, equipment, devices, outfit, as well as their parts and materials to which the requirements of the Rules are applicable while manufacturing.
- 2.17 Ship** - a floating unit intended for sea-going service with length greater than 12 meters and with gross tonnage greater than 15, or which carries more than 12 passengers. The term ship comprises the following: passenger ships, cargo ships, technical floating units, fishing vessels, ships used by Authorities and research ships. The present definition does not apply to ships of war and troopships.
- 2.18 Passenger ship** - a self-propelled ship with permission to carry more than 12 passengers.
- 2.19 Cargo ship** - a ship intended for the transport of cargo, with or without mechanical propulsion.
- 2.20 Self-propelled ship** - a ship with mechanical means of propulsion not requiring assistance from another ship during normal operation.
- 2.21 Fast ship** - a ship capable of achieving maximum speed in knots equal to or exceeding:

$$7.1922 \nabla^{0.1667} \quad (2.21-1)$$

where ∇ is displacement corresponding to the design waterline in [m³], excluding vessel the hull of which is supported completely clear above the water surface in non-displacement mode by aerodynamic forces generated by ground effect.

This comprises the following:

- 1 **High-speed craft (HSC)** - a craft complying with the requirements of IMO Res. MSC.36(63) or IMO Res. MSC.97(73), in their up-to-date versions and capable of achieving maximum speed in knots equal or exceeding the value calculated from the formulae 2.21-1. High speed (HSC) crafts can be divided as follows:
 - **Category A craft** - a high-speed passenger craft as defined in Chapter 1, item 1.4.12 of the HSC Code,
 - **Category B craft** - a high-speed passenger craft as defined in Chapter 1, item 1.4.13 of the HSC Code,
 - **Cargo craft** - a high-speed craft other than passenger craft as defined in Chapter 1, item 1.4.10 of the HSC Code.
- 2 **Dynamically supported craft (DSC)** - a craft complying with the requirements of IMO Res. A.373(X) as amended, i.e. a craft which is operable on or above water and which has characteristics different from conventional displacement ships.

Within aforementioned generality, a craft which complies with either of the following characteristics would be considered a dynamically supported craft:

- its weight, or significant part thereof, is balanced in one mode of operation by other than hydrostatic forces,
- craft capable of achieving maximum speed in knots equal or exceeding the value calculated from the formulae 2.21-1.

Among others, the aforementioned includes mono-hull or multi-hull crafts such as:

- **Hydrofoil** – a non-displacement craft which is supported above the water surface by hydrodynamic forces generated by foils.
- **Surface Effect Ship - SES** – an air-cushion vehicle whose air-cushion is partially or completely preserved by permanently immersed hard elements of the hull.

3 **Fast craft** - a craft not being High-speed craft (HSC) or Dynamically supported craft (DSC) but capable of achieving maximum speed in knots equal or exceeding the value calculated from the formulae 2.21-1.

4 **Air Cushion Vehicle (ACV)** - a craft such that the whole or a significant part of its weight can be supported, whether at rest or in motion, by a continuous generated cushion of air dependent for its effectiveness on the proximity of the surface over which the craft operates and compliant with the requirements of the *Rules, Part 28 - High speed craft*.

NOTE: A high speed passenger ship engaged on domestic voyages means a high speed craft as defined in Reg. X/I of SOLAS 74, as amended, which carries more than 12 passengers, with the exception of passenger ships engaged on domestic voyages in sea areas of Class B, C or D (according to EU Directive 2009/45/EC, as amended) when:

- their displacement corresponding to the design waterline is less than 500 m³, and
- their maximum speed, as defined in Reg. 1.4.30 of the 1994 High Speed Craft Code (IMO Res. MSC.36(63)) and Reg. 1.4.38 of the High Speed Craft Code (IMO Res. MSC.97(73), as amended), is less than 20 knots.

2.22 Modification or conversion on the existing ship:

- .1 which substantially alters the dimensions of the ship, or
- .2 which substantially alters carrying capacity of the ship; or
- .2 which changes the type of the ship, or which changes engine power or type of propulsion; or
- .3 the intent of which is substantially to prolong life of the ship; or
- .4 which otherwise so alters the ship that it becomes reasonable to apply requirements as if it were a new ship, or

.6 which changes the navigation area of the ship, or

.7 which changes the maximum allowable number of passengers on the ship.

Repair or substitution of the elements (components) with the identical elements (components) or restored with original design and scantlings is not to be considered as a modification.

NOTE: For the purpose of application of certain IMO instruments (e.g. SOLAS 74, MARPOL 73/78, ILLC 66) the term "conversion" may be defined differently than above.

2.23 Open type passenger ship - a ship carrying more than 12 passengers and declared as such by the Flag State Administration and which is:

- .1 Not fitted with a watertight weather deck, or
- .2 Fitted with a watertight deck over the part of its length, or
- .3 Fitted with a watertight deck over the whole of its length, but the freeboard to the deck does not meet the minimum requirement for the freeboard assignment.

The following general restrictions shall apply to open type passenger ship:

- a) Classification services cannot be granted for performing international voyages.
- b) Classification services can be granted for restricted service in sheltered and enclosed sea areas only (navigation area 7 and navigation area 8).
- c) Classification services cannot be granted if its maximum speed is equal to or exceeding 20 knots, as defined in 1.4.38 of the *Rules, Part 28 - High speed craft*.

NOTE: Maximum speed, as defined in 1.4.38 of the *Rules, Part 28 - High speed craft* (and in Reg. 1.4.30 of the 1994 High Speed Craft Code (IMO Res. MSC.36(63)), as well as in Reg. 1.4.38 of the High Speed Craft Code (IMO Res. MSC.97(73), as amended), is "the speed achieved at the maximum continuous propulsion power for which the ship is certified at maximum operational weight and in smooth water".

3 CLASSIFICATION SURVEY

Classification survey

3.1 Classification survey is comprising a set of activities during which the ship (or other floating unit) is surveyed during construction on the basis of design approval, tested before being taken into service, and surveyed regularly during its whole operational life, until it is laid-up or scrapped.

Classification covers ship's hull, machinery installations (including electrical installations) and related equipment.

The aim of the classification survey is to verify that the required Rules standards regarding maintenance of the ship, its equipment, electrical and machinery installations are applied, with a special consideration to the navigation area and service of the ship.

3.2 Structural systems and equipment determining the ship type, are subjected to examination within the scope of classification only if the type of the ship is specified in the class notation.

Nevertheless, if structural system and equipment has impact to the safety of ship itself, human life, property at sea or to sea environment, the *Register* reserves the right to extend the scope of classification survey to such items.

Certain installations may be classed separately (e.g. refrigerating installations), and therefore are subjected to classification survey also.

3.3 Activities and requirements concerning classification survey are stated in relevant Parts of the Rules.

3.4 Shipyards, manufacturers, shipowners, etc. are to provide safe access and necessary facilities for the Surveyors while performing classification survey. In addition to that, shipyards, manufacturers, shipowners, etc. are responsible for the organisation of the survey in prescribed time schedules.

3.5 In general, classification survey is performed by the Surveyors of the *Register*.

If deemed necessary and reasonable by the *Register*, performing of classification survey may be entrusted to other recognised organization (RO), in accordance with the agreement on mutual cooperation between the *Register* and that RO.

No certificates, statements or attestations with regard to compliance of technical facts or products with the Rules of the *Register* shall be given or issued by any entity other than the *Register*.

Statement or attestation given or certificate issued by the *Register* shall not release the Owner, Company, manufacturer, etc. from his contractual obligations towards third parties.

3.6 After completing the survey during construction or alteration, or after completing any survey of materials or products, no alteration on the ship construction, machinery installation, equipment or other parts, to which the requirements of the Rules are applicable, is to be carried out without permission of the *Register*.

If certain arrangements or equipment of the ship are out of order, and consequently not being in use, and if they have no major influence on the safety of life, property at sea and protection of the sea environment, i.e. if such equipment not being required by the Rules, they are to be permanently removed from the ship. Exceptionally, the *Register* may not require their removal under condition that on such arrangements or equipment it is clearly posted (locally and in control room) that they are not being in use.

3.7 Classification surveys are not performed as a substitute for the Owner's, Company's or any other party's own quality and safety control of the ship, or their obligations to third parties, nor to relieve them of any responsibilities for not maintaining the ship in good and seaworthy manner.

The Owner is to ensure that the condition of the ship and maintenance of its equipment is such that the ship is in any case capable for navigation with no hazards for the ship, personnel, passengers, cargo and the environment, as it is stated by the Rules.

Therefore, the Rules, classification surveys performed, reports, certificates and other documents issued by the *Register*, are in no way intended to replace or alleviate the duties and responsibilities of other parties such as actual or prospective owners or operators, charterers, brokers, cargo-owners, underwriters, Flag State Administrations, Port State Controls, designers, shipbuilders, manufacturers, repair yards or suppliers.

3.8 Classification survey of existing ships is performed on the basis of a request submitted by the Owner or his representative.

3.9 It is the responsibility of the Owner (or the Company) to ascertain the presence of his representative while surveys of existing ships are performed.

3.10 While performing surveys of existing ships, i.e. during surveys of the parts or systems of the ship, the extent of the survey may be enlarged if there are reasonable doubts as to accuracy or reliability of surveyed parts or systems, as well as in the cases of additional requirements imposed by the *Register*.

Obligations of the Owner

3.11 The Owner, Company or the Master of the ship is to notify the *Register* immediately:

- .1 When docking a ship.
- .2 In cases of changing the purpose of a ship, conversion and alternation to the hull, machinery installations and other equipment influencing the class of the ship assigned by the *Register*. Conversions and alternations are to be performed under the Surveyor's supervision, and are to be in accordance with the requirements of the Rules and/or additional requirements of the *Register*.
- .3 In cases when parts of the ship's structure normally difficult to access are exposed, (e.g. when any part of the main or auxiliary machinery, including boilers, insulation cement or wooden ceilings, etc. is removed). These activities are to be in ac-

cordance with the requirements of the Rules and/or additional requirements of the *Register* and under the Surveyor's supervision.

- .4 When the ship is put out of service or when the ship is laid-up.
- .5 In cases of changing the name, changing the port of registry, changing the flag or selling the ship.
- .6 In cases when the ship sustains damage of such extent that it is presumed that ship's class is affected and that safety and integrity of the ship is endangered. In that case the ship is to be surveyed in the first port of call or according to further instructions from the *Register*. The survey is to be of the extent which the *Register* considers necessary taking into account the amount of the damage.
- .7 In cases when class related deficiencies and/or defects are found as a result to Flag State inspection or Port State Control. Should the Owner or Company fails to inform the *Register* on detention of the ship by Port State Authorities due to class related deficiencies, the *Register* reserves the right to suspend or withdraw Certificate of class.

Confidentiality and disclosure of information

3.12 The *Register* keeps complete files on all ships classed by the *Register*.

The *Register* maintains confidentiality with respect to all documents and other kinds of information received in connection with the classification entrusted to it by the client.

The *Register* is obliged not to dispose documents or any other information concerning ship's classification to third parties without prior consent of the client. However, this shall not apply to:

- .1 the obligations the *Register* has towards the Flag State Administrations and other international organisations;
- .2 the obligations the *Register* has towards legal requirements and international conventions;
- .3 technical data of ships contained in the Register Book;
- .4 status of ship surveys and certificates, in the scope and as defined in IACS PR3 - Transparency of Classification and Statutory Information;
- .5 the obligations of the *Register* has towards the EU Commission regarding access to the information necessary for the purposes of the assessment referred to in Article 8(1) of the Regulation (EC) No. 391/2009 of the European Parliament and of the Council on common rules and standards for ship inspection and survey organisations.

Before mentioned, as far as applicable, applies to files related to approval of manufacturers, products, service suppliers or testing laboratories also.

3.13 The service of the *Register* is available to the Owner at any time when needed, in connection with reports on previously performed surveys, or commencing surveys, as well as with conditions for the classification.

3.14 After every performed survey the *Register* will send to the Owner a Report concerning conditions of class and related time limit for undertaking necessary repairs, improvements or other measures, i.e. time limit for adjusting the ship, equipment, machinery installations or other relevant arrangements and systems with the requirements of the Rules.

Spare parts

3.15 It is the Owner's responsibility to decide whether and which spare parts will be carried on board. As spare parts are outside the scope of classification, they will not be checked during classification surveys, under presumption they are kept on board, maintained in satisfactory condition, or suitably protected and lashed. However, in the case of replacement, the spare parts used are to meet the requirements of the Rules as far as practicable.

4 CLASS NOTATIONS

4.1 GENERAL PROVISIONS

4.1.1 The *Register* will assign appropriate class notation to the ship which meets the requirements of the Rules.

Class notation consists of main and additional characters of class, which are denoting the degree of reliability that ship deserves as well as ship's main particulars.

Apart from class notation the *Register* reserves the right to add special descriptive note(s), as stated but not limited to ones in the following section.

The *Register* can assign class notation related to the following:

- .1 Hull.
- .2 Machinery installation.
- .3 Refrigerating plant.

4.1.2 Class notation for hull comprises:

- .1 Main character of class, comprising:
 - a) character denoting survey during construction,
 - b) character denoting quality of hull.
- .2 Additional character of class, comprising as far as applicable:
 - a) character denoting navigation area,
 - b) character denoting ice strengthening category,
 - c) character denoting ship type,
 - d) character denoting constructional characteristics.

If for instance the *Register* assigns the following class notation for hull:

★ 100A1 1 (unrestricted service) 1B Tanker for oil ESP CREST SD, main character of class is: **★ 100A1**, and additional characters of class are: **1 (unrestricted service) 1B Tanker for oil ESP CREST PW-CA SD** (for further explanation see 4.2).

4.1.3 Class notation for machinery installation comprises:

- .1 Main character of class, comprising:
 - a) character denoting survey during construction,
 - b) character denoting quality of machinery installation.
- .2 Additional character of class, comprising as far as applicable:
 - a) character denoting automation level,
 - b) characters **IGS** and **COW**.

If for instance the *Register* assigns the following class notation for machinery installation:

★ M1 AUT 1 IGS COW, main character of class is: **★ M1**, and additional characters of class are: **AUT 1 IGS COW** (for further explanation see 4.4).

NOTE: Class notation **★ 100A1** (for hull), **★ M1** (for machinery installation) and **★ R** (for refrigerating plant) are to be considered the highest class notations that might be assigned by the *Register*.

- 4.1.4** Class notation for refrigerating plant comprises:
- .1 Main character of class, comprising:
 - a) character denoting survey during construction.
 - .2 Additional character of class, comprising as far as applicable:
 - a) character denoting ability of refrigerating plant.

If for instance the *Register* assigns the following class notation for refrigerating plant:

★ R + C, main character of class is: **★ R**, and additional characters of class are: **+ C** (for further explanation see 4.5).

4.1.5 In addition to any class notation, a descriptive note (or notes) may be added in the Certificate of class.

Descriptive note provides information regarding ship type in greater detail, special design assumptions, arrangements or equipment, which are not covered by main class or additional characters of class.

Descriptive note is not to be considered as a class notation, but as additional information only, and consequently in general is not subjected to provisions related to maintenance of class.

4.2 HULL

4.2.1 Main character of class for hull denoting survey during construction and when after construction is maintained in a condition considered satisfactory by the *Register*. One of the following characters:

- ★** - is to be assigned to a ship if:
 - a) the hull has been built under survey and to the satisfaction of the *Register* in accordance with the Rules, or
 - b) the hull has been built in accordance with the Rules, but under survey and to the satisfaction of another recognized classification society,
- ★** - the hull has been built under survey, in compliance with the rules and to the satisfaction of another recognized classification society.

[No symbol] - if the hull has been built without survey of the *Register* or any recognized classification society no symbol is assigned.

4.2.2 Main character of class denoting quality of hull. One of the characters of class stated in 4.2.2.1 or 4.2.2.2 is to be assigned. Class term for this character of class is 5 years.

4.2.2.1 One of the following characters for ship whose hull is made of metallic materials is to be assigned (for other related requirements see Table 4.2.2-1):

100A1 - is to be assigned to a ship intended for navigation area notations **1** and **2** if general condition found by survey fully complies with requirements of the Rules.

100A2 - is to be assigned to a ship intended for navigation area notations **1** and **2**, but whose construction due to general condition found by survey do

not comply, or do not fully comply with requirements of the Rules.

- 90A1** - is to be assigned to a ship intended for navigation area notations **3** and **4** if general condition found by survey fully complies with requirements of the Rules.
- 90A2** - is to be assigned to a ship intended for navigation area notations **3** and **4**, but whose construction due to general condition found by survey do not comply, or do not fully comply with requirements of the Rules.
- 50A1** - is to be assigned to a ship intended for navigation area notations **5**, **6**, **7** and **8** if general condition found by survey fully complies with requirements of the Rules.
- 50A2** - is to be assigned to a ship intended for navigation area notations **5**, **6**, **7** and **8**, but whose construction due to general condition found by survey do not comply, or do not fully comply with requirements of the Rules.

4.2.2.2 One of the following characters for ship having hull made of non-metallic materials (wood, fibre reinforced plastics, ferro-cement, etc.) is to be assigned (for other related requirements see Table 4.2.2-1):

- 90B1** - to a ship intended for navigation area notations **3** and **4** if general condition found by survey fully complies with requirements of the Rules.

NOTE: In some exceptional cases, for ships having **90B1** character of class assigned, navigating area notation **1** or **2** may be affixed, considering each case separately.

- 90B2** - to a ship intended for navigation area notations **3** and **4**, but whose construction due to general condition found by survey do not comply, or do not fully comply with requirements of the Rules.
- 50B1** - to a ship intended for navigation area notations **5**, **6**, **7** and **8** if general condition found by survey fully complies with requirements of the Rules.
- 50B2** - to a ship intended for navigation area notations **5**, **6**, **7** and **8**, but whose construction due to general condition found by survey do not comply, or do not fully comply with requirements of the Rules.

4.2.3 Additional character of class denoting navigation area is a number which denotes permissible navigation area of the ship.

The *Register* may assign appropriate character denoting navigation area for the geographical areas different from those stated below, if the *Register* considers that the sea conditions, distance from the nearest coast, or distance from the nearest port of refuge are equivalent to the geographical areas stated below. In that case a geographical navigation area is added to the character denoting navigation area (e.g. **3 - Red Sea**).

Also, geographical navigation area may be additionally restricted by stating the maximum distance from the

nearest harbour or safe anchorage in nautical miles, and/or by the sea state conditions, which is to be indicated in the Certificate of class.

Observance of the navigation area restrictions and sea state conditions restrictions if any, is a prerequisite for maintaining the validity of the Certificate of class.

Characters denoting navigation area are:

- 1 **1 - (unrestricted service)** - international ocean-going service navigation in all seas and waters accessible from the sea.
- 2 **2 - (great coastal service)** - international navigation in the seas (and waters accessible from the sea) extending between Gibraltar and Babb el Mandeb straits, including the Black and Azov seas and out of Mediterranean sea to the ports of Lisbon and Casablanca in the Atlantic ocean, and the Red sea to the ports of Aden and Berbera.
- 3 **3 - (short coastal service)** - international navigation during which the ship shall navigate at the distance not more than 50 nautical miles from the nearest coast, land or island.

NOTE: For Croatian flagged ships this navigation area denotes navigation in the Adriatic sea and in part of the Jonian sea (and waters accessible from the sea) to the line connecting Cape Santa Maria di Leuca (including the port of Taranto) and the Cape of Catacolo (including the port of Catacolo), Jonian islands and bays: of Patras, of Corinth (including the Corinth channel) and of Athens up to the line connecting capes of Kolona and Skilli.

- 4 **4 - (coastal service)** - international navigation during which the ship shall navigate at the distance not more than 20 nautical miles from the nearest coast, land or island.

NOTE: For Croatian flagged ships this navigation area denotes navigation through the Adriatic sea (and waters accessible from the sea) it means navigation up to the line connecting Cape of Santa Maria di Leuca and Cape Kefali on island Corfu and Cape of Scala (near Butrin bay). When planning the voyage between eastern and western coast of the Adriatic sea, the terms coast, land or island do not include coasts of islands Palagruža, Galuila, Pianosa, islands of Tremiti, island Sazan and coast of Albania from the Cape of Gjuhes (Sqepi i Gjuhes) to the Cape of Panormes (Sqepi i Panormes).

- 5 **5 - (national service)** - navigation in territorial sea and waters accessible from the sea, during which the ship shall navigate at the distance not more than 12 nautical miles from the nearest coast, land or island.

NOTE: For Croatian flagged ships this navigation area denotes internal sea water navigation and navigation in territorial sea of the Republic of Croatia and waters accessible from the sea.

.6 6 - (national coastal service)

NOTE: This navigation area is exclusively applicable for Croatian flagged ships.

6 - (national coastal service) - navigation in internal sea waters of the Republic of Croatia (and waters accessible from the sea) as prescribed by the Maritime Code of the Republic of Croatia.

Within the time period from 1st April till 31st October this area is extended to:

- navigation within 1.5 nautical miles from the base line in direction of the economic line,
- navigation through Channel of Vis to islands of Vis and Biševo, then close to the said islands navigating at the distance not more than 1.5 nautical miles from their coasts.

.7 7 - (national coastal service in sheltered sea areas) - navigation in sheltered sea area of internal sea waters and waters accessible from the sea.**.8 8 - (service in enclosed sea areas)** - navigation in ports, bays, river mouths and lakes.

4.2.4 Additional characters of ice class denoting ice strengthening category. Characters of class stated in 4.2.4.1 and 4.2.4.2 may be assigned.

4.2.4.1 Polar class. This character of class, as defined in 1.3.2 of the *Rules, Part 29 - Polar Class Ships and Ice Class Ships*, is to be assigned to a vessel intended for independent navigation in polar waters or ice-infested waters complying with the requirements of the *Rules, Part 29 - Polar Class Ships and Ice Class Ships, Section 1 to Section 7*.

- PC 1** - ships capable of year-round operation in all polar waters.
- PC 2** - ships capable of year-round operation in moderate multi-year ice conditions.
- PC 3** - ships capable of year-round operation in second-year ice which may include multiyear ice inclusions.
- PC 4** - ships capable of year-round operation in thick first-year ice which may include old ice inclusions.
- PC 5** - ships capable of year-round operation in medium first-year ice which may include old ice inclusions.
- PC 6** - ships capable of summer/autumn operation in medium first-year ice which may include old ice inclusions.
- PC 7** - ships capable of summer/autumn operation in thin first-year ice which may include old ice inclusions.

4.2.4.2 Ice class. This character of class, as defined in 1.3.3 of the *Rules, Part 29 - Polar Class Ships and Ice Class Ships*, is to be assigned to a vessel complying with the requirements of the *Rules, Part 29 - Polar Class Ships and Ice Class Ships, Section 8*.

1AS - ships with such structure, engine output and other properties that they are normally capable of navigating in difficult ice conditions without the assistance of icebreakers.

1A - ships with such structure, engine output and other properties that they are capable of navigating in difficult ice conditions, with the assistance of ice-breakers when necessary.

1B - ships with such structure, engine output and other properties that they are capable of navigating in moderate ice conditions, with the assistance of icebreakers when necessary.

1C - ships with such structure, engine output and other properties that they are capable of navigating in light ice conditions, with the assistance of icebreakers when necessary.

1D - ships that have a steel hull and that are structurally fit for navigation in the open sea and that, despite not being strengthened for navigation in ice, are capable of navigating in very light ice conditions with their own propulsion machinery.

4.2.5 Additional character of class denoting ship type. One of the characters of class stated in 4.2.5.1 to 4.2.5.22 is to be assigned.

To ships with type notation **Tanker for oil, Product carrier, Chemical tanker, Bulk carrier, Ore carrier, Ore/oil carrier** or **OBO carrier** which are subjected to the requirements of the Enhanced Survey Program, as stated in the *Rules, Part 1 – General requirements, Chapter 5 - Surveys of ships in service*, 3, 5 and 7, in addition to type notation the notation **ESP** shall be affixed (see also 4.2.5.5, 4.2.5.6 and 4.2.5.8). For the ships engaged in the international voyages (character denoting navigation area **1, 2, 3** and **4**) type notation of the ship is to be entered in the Certificate of class in English, and for all other ships in Croatian.

Exceptionally, for the ships not engaged in international voyages, and not flying Croatian flag, class notation is to be entered in English.

Below stated type notations in English are given in bold, while equivalent type notations in Croatian are given in bold-italic.

4.2.5.1 Passenger ships

Passenger ship (*Putnički brod*) - a self-propelled ship with a permission to carry more than 12 passengers, specially designed and equipped for that purpose, with a single or multi-deck hull and superstructure, and with or without cabin accommodation for passengers.

If a passenger ship complies with the requirements of IMO Res. A.373(X), as amended (i.e. if a ship is considered to be Dynamically supported craft), the following descriptive note is to be entered into the Certificate of class:

" Dynamically supported passenger craft "

Passenger ship HSC (*Putnički brod HSC*) - a passenger ship complying with the requirements of the *Rules, Part 28 - High speed craft* (see 4.2.5.11).

Ro-Ro passenger ship (*Ro-ro putnički brod*) - a passenger ship provided with additional decks in the hull for

the carriage of vehicles, which embarks and disembarks on their own wheels, access to which is by side/stern/bow ramps.

4.2.5.2 General cargo ships

General cargo ship (*Brod za opći teret*) - a ship intended for the carriage of general cargo which will not be carried in containers.

4.2.5.3 Ro-Ro ships

Ro-Ro cargo ship (*Ro-ro teretni brod*) - a ship specifically designed for the carriage of vehicles, which embarks and disembarks on their own wheels, and/or goods on pallets or in containers which can be loaded or unloaded by means of wheeled vehicles.

4.2.5.4 Multipurpose ships

Multipurpose ship is a ship specifically designed and equipped for carriage of different kinds of cargo such as general cargo, containers, cars, bulk cargo, etc. Assigned character of class depends on combination of ship's purposes (e.g. *Container ship/Ro-Ro cargo ship, Tanker for oil/Chemical tanker, Tug/Supply vessel*).

4.2.5.5 Bulk carriers

Bulk carrier (*Brod za rasuti teret*) - see 4.2.2.2.1.

For bulk carriers contracted for new construction on or after 1st July 2003, having a length of 150 m or above, and additionally complying with the *Rules, Part 2 - Hull, 17.4.6* the following additional characters of class may be affixed, depending on the loading conditions, filling ratios of the cargo holds, etc.:

BC-A - for bulk carriers designed to carry dry bulk cargoes of cargo density of 1.0 t/m³ and above with specified holds empty at maximum draught in addition to **BC-B** conditions.

BC-B - for bulk carriers designed to carry dry bulk cargoes of cargo density of 1.0 t/m³ and above with all cargo holds loaded in addition to **BC-C** conditions.

BC-C - for bulk carriers designed to carry dry bulk cargoes of cargo density less than 1.0 t/m³.

Depending on the limitations to be observed during operation as a consequence of the design loading conditions applied during the design phase, the following additional characters of class may be affixed:

{**no MP**} - for bulk carrier having additional characters of class **BC-A**, **BC-B** and **BC-C** when the vessel has not been designed for loading and unloading in multiple ports in accordance with the conditions specified in *Rules, Part 2 - Hull, 17.4.6*.

{**maximum cargo density ... t/m³**} - for bulk carrier having additional characters of class **BC-A** and **BC-B** if the maximum cargo density is less than 3.0 t/m³.

{**holds a, b, ... may be empty**} - allowed combination of empty holds for bulk carrier having additional character of class **BC-A**.

GRAB [X] - additional character of class for bulk carriers having one of the additional characters of class **BC-A** or **BC-B** and unladen grabs weight **X** equal to or greater than 20 tons. For these ships the requirements for the this character of class are specified in *Rules, Part 2 - Hull, 17*. For

all other ships this additional character of class is not mandatory.

CSR - additional character of class to be assigned to bulk carrier complying with IACS Common Structural Rules.

SELF-UNLOADERS - additional character of class to be assigned to bulk carrier which are constructed generally with single deck, double bottom, hopper side tanks and topside tanks and with single or double side skin construction in cargo length area and intended to carry and self-unload dry cargoes in bulk (see 4.3.2.2.2).

NOTE: For existing bulk carriers, already classed by the *Register* and complying with IACS Common Structural Rules, as an equivalent, and instead of **CSR** character of class, the following descriptive note may be entered into the Certificate of class:

" Ship compliant with IACS Common Structural Rules (CSR) "

Ore carrier (*Brod za rudaču*) - see 4.3.2.3.1.

Self-Unloading Bulk Carrier - a ship intended to carry and self-unload dry cargoes in bulk.

4.2.5.6 Combination carriers

Combination carrier - see 4.3.2.4.1. This term comprises:

Ore/oil carrier (*Brod za rudaču / ulje*) - see 4.3.2.4.2.

OBO carrier (*Brod za ulje / rasuti teret / rudaču*) - see 4.3.2.4.3.

4.2.5.7 Container ships

Container ship (*Kontejnerski brod*) - a ship specially designed and equipped with the appropriate facilities for carriage of containers.

4.2.5.8 Cement carriers

Cement carrier (*Brod za cement*) - a ship intended for carriage of cement in bulk with no weather deck hatches, but pumping and piping arrangements for the loading and unloading of cement.

4.2.5.9 Tankers

Tanker for non-toxic liquid cargo (*Tanker za neškodljivi tekući teret*) - a ship intended to carry in bulk non dangerous/non-toxic liquids (such as wine, water, vegetable or animal oils, etc.).

Tanker for oil (*Tanker za ulje*) - see 4.3.2.1.1.

If an oil tanker is intended exclusively for carriage of liquid cargo with flash point above 60 °C (closed cup test), the following descriptive note is to be entered into the Certificate of class:

" Not intended for carriage of liquid cargo having flash point below 60 °C (closed cup test) "

NOTE: For the purpose of classification, an oil tanker is to be considered as a double hull oil tanker when it has been constructed primarily for the carriage of oil in bulk (cargoes declared in MARPOL 73/78, Annex I), having the cargo tanks protected by a double hull which extends for the entire length of the cargo area, consisting of double sides and double bottom spaces for the carriage of water ballast or void spaces.

CSR - additional character of class to be assigned to oil tanker complying with IACS Common Structural Rules.

NOTE: For existing oil tankers, already classed by the *Register* and complying with IACS Common Structural Rules, as an equivalent, and instead of **CSR** character of class, the following descriptive note may be entered into the Certificate of class:

" Ship compliant with IACS Common Structural Rules (CSR) "

Product carrier (Tanker za prerađevine) - oil tanker intended for carriage of oil products, excluding crude oil.

Chemical tanker (Tanker za kemikalije) - self-propelled ship constructed generally with integral tanks and intended primarily to carry chemicals in bulk, i.e. carriage of any liquid product listed in IBC Code (*International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk*), Chapter 17. See 4.3.2.5.1 also.

When a chemical tanker complies with the requirements of IBC Code, Chapter 2, item 2.6.1.1, the following descriptive note is to be entered into the Certificate of class:

"Chemical tanker – Type 1 "

When a chemical tanker complies with the requirements of IBC Code, Chapter 2, item 2.6.1.2, the following descriptive note is to be entered into the Certificate of class:

"Chemical tanker – Type 2 "

When a chemical tanker complies with the requirements of IBC Code, Chapter 2, item 2.6.1.3, the following descriptive note is to be entered into the Certificate of class:

"Chemical tanker – Type 3 "

4.2.5.10 Refrigerated cargo ships

Refrigerated cargo ship (Brod za rashlađeni teret) - a ship (excluding liquefied gas carriers and fishing vessels) specially intended to carry permanently refrigerated cargoes and having fixed refrigerating installations and insulated holds.

4.2.5.11 High-speed crafts

HSC - high speed craft meeting the requirements of the *Rules, Part 28 – High speed craft*.

For a passenger ship defined as "Category A craft" in respect to the HSC Code, the following descriptive note is to be entered into the Certificate of class:

" High-speed passenger Category A craft "

For a passenger ship defined as "Category B craft" in respect to the HSC Code, the following descriptive note is to be entered into the Certificate of class:

" High-speed passenger Category B craft "

For a ship other than above, the type of service may be specified as a descriptive note, and may be entered into the Certificate of class (e.g. "*High-speed cargo ship* ").

4.2.5.12 Tugs

Tug (Tegljač) - a ship specially constructed and equipped for towing and/or rescuing and salvage of ships or other floating units.

4.2.5.13 Supply vessels

Supply vessel (Brod za opskrbu) - a ship mainly intended and equipped for the carriage of special personnel, special materials and equipment which are used to provide facilities to offshore units and other marine installations, as well as to provide assistance in performing special activities.

For ships complying with IMO MSC/Circ.645 "Guidelines for vessels with dynamic positioning system", the following descriptive note is to be entered into the Certificate of class:

" Ship equipped with Dynamic positioning system (DPS) "

4.2.5.14 Technical floating units

Technical floating unit is a general term comprising following types of self-propelled or non-self-propelled ships intended for performance of technical activities.

Dredger (Jaruzalo) - a ship provided with fixed arrangements and equipment for dredging the sea floor, rivers, lakes, canals or harbours, whether or not equipped with spaces for receiving dredged material.

Floating crane (Ploveća dizalica) - a ship with pontoon hull and a lifting crane, specifically arranged and equipped for lifting of heavy cargoes. If the weather deck is specially strengthened this may be intended for carrying heavy cargoes.

Self-unloading hopper barge (Samoiskrcavajuća klapeta) - a technical floating unit (usually non-self-propelled) arranged in such a way that the dredged material may be unloaded through special devices fitted on the bottom.

Split hopper barge (Klapeta s uređajem za rastvaranje dna) - a technical floating unit (usually non-self-propelled) arranged such that the dredged material may be unloaded by splitting the hull into two halves.

Dump barge (Prevrtaljaka) - a technical floating unit (usually non-self-propelled) arranged such that the dredged material may be unloaded inclining the hull.

Barge-solid bulk in cargo holds (Teglenica-rasuti teret u skladištima) - a technical floating unit (usually non-self-propelled) intended for carriage of solid bulk cargo in cargo holds.

Barge-cargo on weather deck (Teglenica-teret na palubi) - a technical floating unit (usually non-self-propelled) intended for carriage of cargo on weather deck.

Barge-liquid bulk cargo in cargo tanks (Teglenica-tekući teret u tankovima) - a technical floating unit (usually non-self-propelled) intended for carriage of liquid bulk cargo in cargo tanks.

Technical floating unit (Tehnički plovni objekt) - a technical floating unit (self or non-self propelled) designed and equipped for specific purposes, found to comply with the relevant requirements of the Rules and not comprised within any of above, generally having specific features described by descriptive note(s).

4.2.5.15 Ships for lifting and handling of heavy cargoes

Crane ship (Brod dizalica) - a ship specially designed and equipped with a lifting crane for lifting and carriage of heavy cargoes.

4.2.5.16 Livestock carriers

Livestock carrier (*Brod za stoku*) - a ship designed for carriage of livestock in holds and platforms above the main deck divided in special compartments.

4.2.5.17 Research ships

Research ship (*Istraživački brod*) - a ship without cargo spaces, engaged in scientific research, non-commercial expeditions and surveys, carrying scientists, technicians and members of expeditions, and provided with special equipment and arrangements suitable for that purpose (i.e. laboratories, accommodation for research personnel, etc.).

NOTE: Every research ship, having $GT \geq 500$, applied for classification and for which Special Purpose Ship Safety Certificate has been issued on or after 13 May 2008, should comply with the provisions of IMO Res. MSC.266(84) also.

4.2.5.18 Training ships

Training ship (*Školski brod*) - a ship for training of marine personnel gaining training and practical marine experience to develop seafaring skills suitable for a professional career at sea, and provided with special equipment and arrangements suitable for that purpose (teaching rooms, accommodation spaces for teachers and trainees, etc.).

NOTE: Every training ship, having $GT \geq 500$, applied for classification and for which Special Purpose Ship Safety Certificate has been issued on or after 13 May 2008, should comply with the provisions of IMO Res. MSC.266(84) also.

4.2.5.19 Fishing vessels

Fishing vessel (*Ribarski brod*) - a self-propelled ship intended and equipped for fishing or exploiting other living resources of the sea.

4.2.5.20 Floating units

Floating units are units generally engaged in port areas or other enclosed areas, permanently moored, anchored, or based on the sea bed, or wholly or partially buried below the sea floor and generally not intended for navigation. This term comprises:

Floating dock (*Plutajući dok*) - a non-self-propelled floating unit, specifically designed, permanently moored and anchored, equipped for lifting and/or launching ships, floating units and non-self-propelled crafts, while drydocking, repairs or modifications are performed.

Floating storage (*Plutajuće skladište*) - a floating unit specifically designed and equipped, permanently moored and anchored, intended for storage of cargoes in liquid (including FPSOs), or packed form or in bulk.

Floating restaurant (*Plutajući restoran*) - a unit specifically designed and equipped, permanently moored and anchored intended for catering.

4.2.5.21 Ships used by Authorities

Ship used by Authorities (*Javni brod*) - a ship owned by the State or its body, not being a war ship or a vessel engaged in trade, and includes the following types: pilot boats, rescue vessels, police boats, custom boats, etc.

4.2.5.22 Yachts

Yacht (*Jahta*) - recreational craft for personal or commercial use, having hull length greater than 12 meters, having facilities and accommodation for extended navigation,

authorized to carry not more than 12 passengers, excluding crew.

4.2.6 Additional character of class is denoting ship's constructional characteristics. If applicable, one or several of the following characters are to be assigned:

CAR - **CARRIAGE OF CARS**. This character is to be assigned to a ship specially equipped for carriage of cars but not specifically designed for this purpose.

CON - **CARRIAGE OF CONTAINERS**. This character is to be assigned to a ship equipped for carriage of containers not specifically designed for this purpose.

CREST - **CROATIAN REGISTER OF SHIPPING EVALUATION OF STRUCTURE**. This character is to be assigned to a ship the structural condition of which is checked with 3D FEM calculation programme at design stage or after construction, according to the requirements of the *Register*. Detailed technical requirements and conditions for assignment of this character of class are contained in the CREST Guidelines of the *Register*.

ESP - **ENHANCED SURVEY PROGRAMME**. This character is to be assigned to a ship with hull subjected to enhanced survey program (applicable to the following types of ships: bulk carrier, self-unloading bulk carrier, ore carrier, ore/oil carrier, OBO carrier, tanker for oil, chemical tanker and product carrier with $GT \geq 500$). See 4.3

EXP - **EXPERIMENTAL HULL OR HULL EQUIPMENT**. This character is to be assigned to the ship with the hull or hull equipment constructed in accordance with design, for which sufficient experience is not available. The *Register* will decide at what intervals the required surveys will have to be carried out. If the experience over prolonged period of time has proved the efficiency of design the character **EXP** may be cancelled.

FIR - **FIRE FIGHTING EQUIPMENT**. This character is to be assigned to a ship equipped with appropriate firefighting equipment, which is to be approved by the *Register*, intended for firefighting operations on other vessels and harbour facilities. For specific requirements related to this character refer to the *Rules, Part 17 - Fire protection, 2.9*.

GRC - **GRAIN CARRIAGE**. This character is to be assigned to a ship which complies with the requirements of IMO Res. MSC.23(59) (*International Code for the Safe Carriage of Grain in Bulk*).

HCS - **HEAVY CARGO STRENGTHENED**. This character is to be assigned to a ship when all, or some cargo holds are strengthened for carriage of heavy cargoes. For additional requirements

related to this character refer to the *Rules, Part 2 - Hull*.

- HME** - **HOLDS MAY BE EMPTY**. This character is to be assigned to a ship when some of the cargo holds may be empty when carrying cargo (example shows the way of indication when holds 1, 3 and 5, or 2 and 4 may be empty: **HME 1,3,5/2,4**).
- IWS** - **IN-WATER SURVEY**. This character is to be assigned to a ship with a hull specially marked and equipped for in-water surveys.
- PW-CA** - **PROTECTION AT WORK AND CREW ACCOMODATION**. This character is to be assigned to a ship complying with the requirements for the protection at work and crew accommodation as stipulated in the *Rules for technical supervision of sea-going ships, Part 20 - Protection at work and crew accommodation*.
- S** - **INTACT STABILITY**. This character is to be assigned to a ship when intact stability file has been examined by the *Register*.
- SD** - **DAMAGE STABILITY**. This character is to be assigned to a ship when damage buoyancy and stability file has been examined by the *Register*.
- TOD** - **TIMBER ON DECK**. This character is to be assigned to a ship specially equipped for carriage of timber on deck and complying with IMO Res. A.1048(27) (*Code of Safe Practice for ships Carrying Timber Deck Cargoes, 2011 (2011 TDC Code)*).

4.3 MANDATORY SHIP TYPE AND ENHANCED SURVEY PROGRAMME (ESP) NOTATIONS

4.3.1 Preamble

4.3.1.1 The regime of enhanced surveys given in the following IACS Unified Requirements (UR) (see the *Rules, Part 1 – General requirements, Chapter 5 - Surveys of ships in service*, also):

- .1 UR Z10.1 - Hull surveys of oil tankers which are not double hull oil tankers;
- .2 UR Z10.2 - Hull surveys of single side skin bulk carriers¹⁾;
- .3 UR Z10.3 - Hull surveys for chemical tankers;
- .4 UR Z10.4 - Hull surveys for double hull oil tankers;
- .5 UR 10.5 - Hull surveys for double side skin bulk carriers¹⁾;

¹⁾ For bulk carriers with hybrid cargo hold arrangements, i.e. with some cargo holds of single side skin and others of double side skin, the requirements of UR Z10.2 are to apply to cargo holds of single side skin and Z10.5 to cargo holds of double side skin.

- .6 UR Z10.2 and/or Z10.5 - Hull surveys for ore carriers, depending on the structural configuration;
- .7 UR Z10.2 and/or Z10.5 and Z10.1 and/or Z10.4 Hull surveys for combination carriers (ore/oil and oil/bulk/ore), depending on the structural configuration;

as appropriate, are applicable to a number of ship types falling within the broad definitions of oil tankers, chemical tankers and bulk carriers contained in above listed URs.

4.3.1.2 To clearly indicate to shipowners and the users of the Register Book of the *Register* those ships which are subject to an enhanced survey programme, the following notations shall be included within the class notation assigned to all such ships, built and/or maintained in accordance with the Rules.

4.3.2 Ship type and enhanced survey programme (ESP) notations

4.3.2.1 Oil Tanker

4.3.2.1.1 The ship type notation **Tanker for oil**, or equivalent, and the notation **ESP** shall be assigned to sea going self-propelled ships²⁾ which are constructed generally with integral tanks and intended primarily to carry oil in bulk. This type notation shall be assigned to tankers of both single and double hull construction, as well as tankers with alternative structural arrangements, e.g. mid-deck designs. Typical mid-ship sections are given in Figure 4.3-1 a).

NOTE: Oil tankers that do not comply with MARPOL, Reg. I/19 may be subject to International and/or National Regulations requiring phase out under MARPOL, Reg. I/20 and/or MARPOL, Reg. I/21.

4.3.2.2 Bulk Carrier

4.3.2.2.1 The ship type notation **Bulk carrier**, or equivalent, and the notation **ESP** shall be assigned to sea going self-propelled ships²⁾ which are constructed generally with single deck, double bottom, hopper side tanks and topside tanks and with single or double side skin construction in cargo length area and intended primarily to carry dry cargoes in bulk. Typical midship sections are given in Figure 4.3-1 b).

4.3.2.2.2 The ship type notation **SELF-UNLOADERS**, or equivalent, and the notation **ESP** shall be assigned to sea going self-propelled ships²⁾ which are constructed generally with single deck, double bottom, hopper side tanks and topside tanks and with single or double side skin construction in cargo length area and intended to carry and self-unload dry cargoes in bulk. Typical midship sections are given in Figure 4.3-1 g).

4.3.2.3 Ore Carrier

4.3.2.3.1 The ship type notation **Ore carrier**, or equivalent, and the notation **ESP** shall be assigned to sea going self-propelled ships²⁾ which are constructed generally with single

²⁾ Self-propelled ships are ships with mechanical means of propulsion not requiring assistance from another ship during normal operation.

deck, two longitudinal bulkheads and a double bottom throughout the cargo length area and intended primarily to carry ore cargoes in the centre holds only. Typical midship sections are given in Figure 4.3-1 c).

4.3.2.4 Combination Carrier

4.3.2.4.1 Combination carrier is a general term applied to ships intended for the carriage of both oil and dry cargoes in bulk; these cargoes are not carried simultaneously, with the exception of oily mixture retained in slop tanks. The ship types defined in 4.3.2.4.2 and 4.3.2.4.3 below shall be considered to be combination carriers.

4.3.2.4.2 The ship type notation **Ore/oil carrier**, or equivalent, and the notation **ESP** shall be assigned to sea going self-propelled ships ²⁾ which are constructed generally with single deck, two longitudinal bulkheads and a double bottom throughout the cargo length area and intended primarily to carry ore cargoes in the centre holds or of oil cargoes in centre holds and wing tanks. Typical midship sections are given in Figure 4.3-1 d).

NOTE: Ore / oil carriers that do not comply with MARPOL, Reg. I/19 may be subject to International and/or National Regulations requiring phase out.

4.3.2.4.3 The ship type notation (Oil / Bulk / Ore) **OBO carrier**, or equivalent, and the notation **ESP** shall be assigned to sea going self-propelled ships ²⁾ which are constructed generally with single deck, double bottom, hopper side tanks and topside tanks, and with single or double side skin construction in the cargo length area, and intended primarily to carry oil or dry cargoes, including ore, in bulk. Typical midship sections are given in Figure 4.3-1 e).

NOTE: Oil / Ore / Bulk carriers that do not comply with MARPOL, Reg. I/19 may be subject to International and/or National Regulations requiring phase out.

4.3.2.5 Chemical tanker

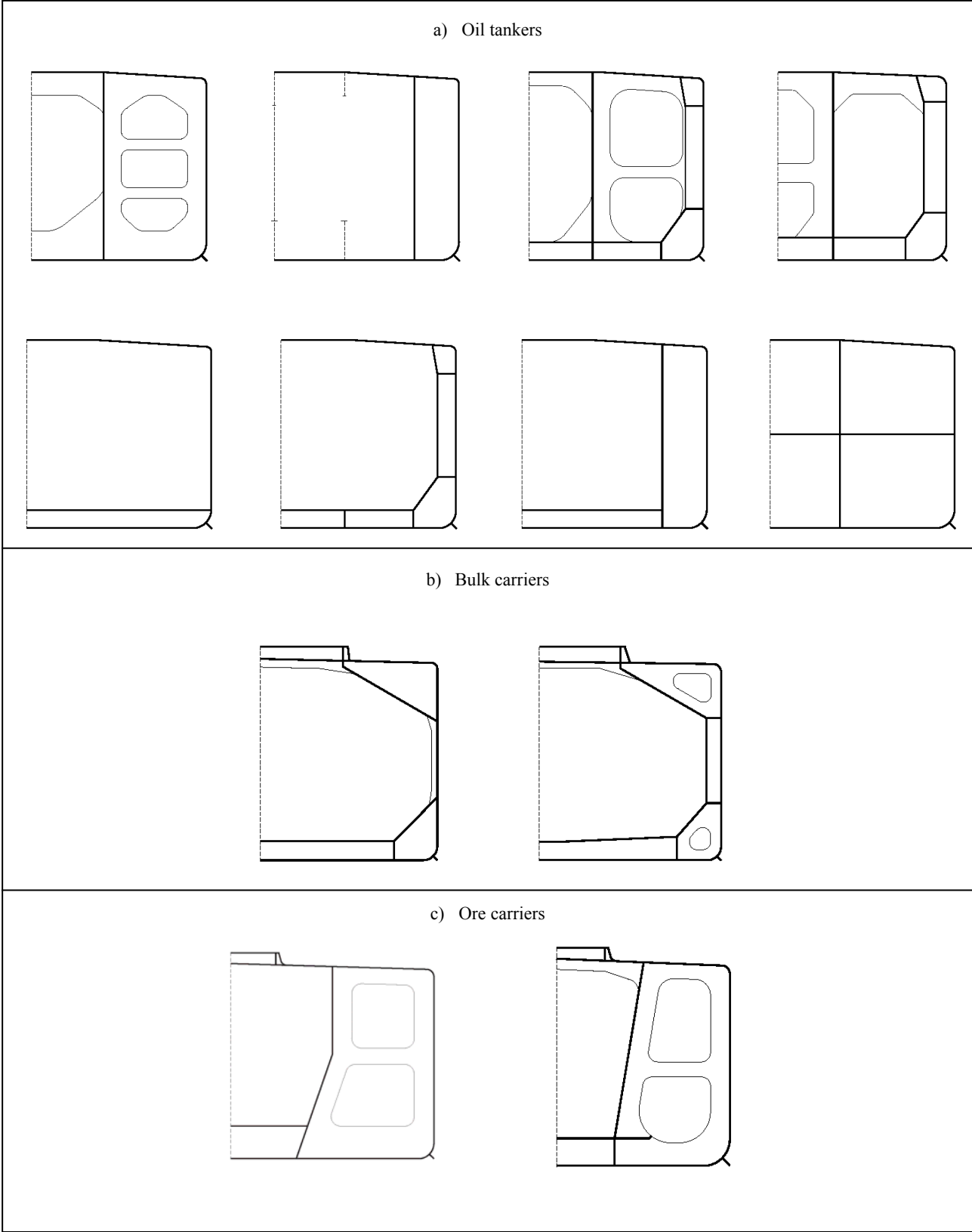
4.3.2.5.1 The ship type notation **Chemical tanker**, or equivalent, and the notation **ESP** shall be assigned to sea going self-propelled ships ²⁾ which are constructed generally with integral tanks and intended primarily to carry chemicals in bulk. This type notation shall be assigned to tankers of both single or double hull construction, as well as tankers with alternative structural arrangements. Typical midship sections are given in Figure 4.3-1 f).

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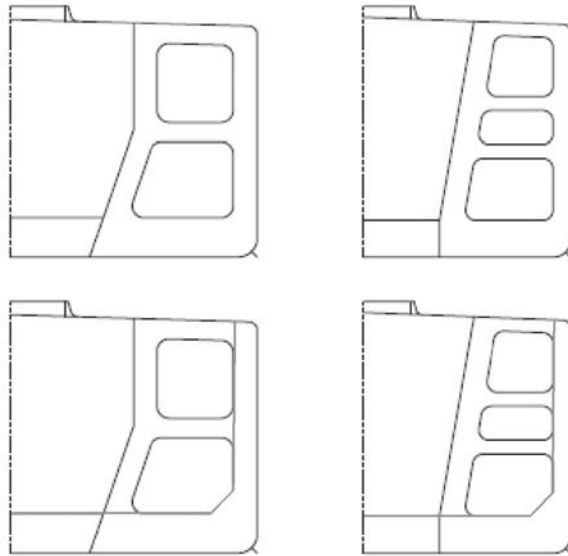
Table 4.2.2-1
Characters denoting quality of hull and relating class term

Building material of hull	Character denoting quality of hull	Class term (years)	Character denoting navigation area	Exemptions related to ship's equipment and navigation area (applicable to all ships excluding fishing vessels)
METALLIC MATERIALS	100A1	5	1 or 2	No exemptions
	100A2	5		
	90A1	5	3 or 4	Mooring and anchoring equipment is to be defined according to equipment number as defined in the <i>Rules, Part 3 – Hull Equipment</i>
	90A2	5		
	50A1	5	5, 6, 7 or 8	Anchoring equipment for navigation area notations 5, 6, 7 and 8 is to be defined according to equipment number as defined in the <i>Rules, Part 3 – Hull Equipment</i>
	50A2	5		
NON-METALLIC MATERIALS	90B1	5	1¹⁾, 2¹⁾, 3 or 4	Mooring and anchoring equipment is to be defined according to equipment number as defined in the <i>Rules, Part 3 – Hull Equipment</i>
	90B2	5		
	50B1	5	5, 6, 7 or 8	Anchoring equipment for navigation area notations 5, 6, 7 and 8 is to be defined according to equipment number as defined in the <i>Rules, Part 3 – Hull Equipment</i>
	50B2	5		
¹⁾ In some exceptional cases, for ships having 90B1 character of class assigned, navigating area 1 or 2 may be affixed, considering each case separately.				

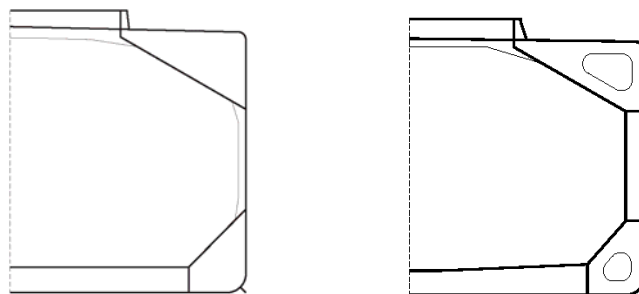
Figure 4.3-1
Typical transverse sections for ships with **ESP** notation affixed



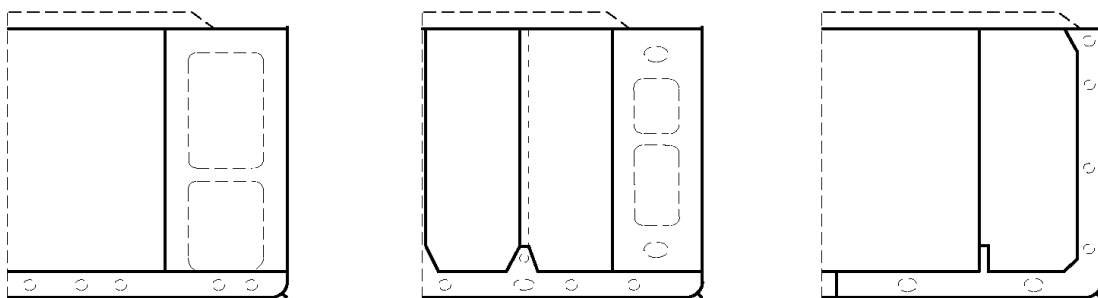
d) Ore / oil carriers

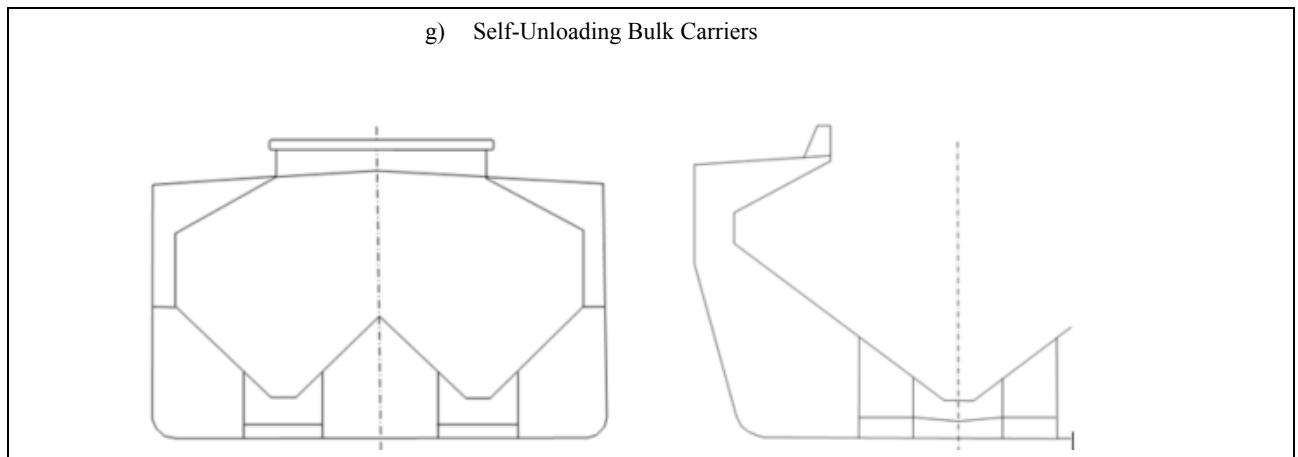


e) Oil/bulk/ore (OBO) carriers



f) Chemical tankers





4.4 MACHINERY INSTALLATION

4.4.1 Main character of class for machinery installation denoting survey during construction and when after construction is maintained in a condition considered satisfactory by the *Register*. One of the following characters:

- ★ - is assigned to a ship if:
 - a) the machinery installation has been built under survey and to the satisfaction of the *Register* in accordance with the Rules, or
 - b) the machinery installation has been built in accordance with the Rules, but under survey and to the satisfaction of another recognized classification society.
- ★ - the machinery installation has been built under survey, in compliance with the rules and to the satisfaction of another recognized classification society.
- [No symbol] - the machinery installation has been built without survey of the *Register* or any other recognized classification society.

4.4.2 Main character of class denoting quality of machinery installation. Class term for this character of class is 5 years. One of the following is to be assigned:

- M1** - this character of class is to be assigned to a ship if main propelling and essential auxiliary engines are fully complying with requirements of the Rules.
- M2** - this character of class is to be assigned to a ship if main propelling and essential auxiliary engines are not fully complying with requirements of the Rules.

- [No symbol] **M2** - this character of class may be assigned on the case-by-case basis subject to special consideration of the *Register*. In that case assigning of the subject class notation is utilised by accepting the manufacturer's certificates for items of propelling and essential machinery (including gearing with single input/output arrangements) and for electrical power generators, subject to the following requirements:
 - 1 Propulsion engines are to be type approved by the *Register* (or by some other recognized classification society³⁾).
 - 2 Generators for electrical power are to be type approved by the *Register* (or by some other recognized classification society³⁾).
 - 3 Machinery and associated systems are designed and manufactured according to the requirements of the Rules.
 - 4 Machinery and equipment is manufactured under the recognized quality system.
 - 5 Propellers, propeller shafts and multiple input/output gearboxes are excluded from above stated, i.e. will not be found acceptable if supplied with the manufacturer's certificate.

Notwithstanding above stated, assignment of [No symbol] **M2** is excluded for the following cases:

- ships intended for navigation in navigation area **1** or navigation area **2**;
- ships having more than 300 GT;
- passenger ships;
- ships falling under the scope of HSC Code;
- fishing vessels having length more than 24 meters and falling under the scope of EU Directive 97/70/EC, as amended.

In exceptional cases, assignment of subject character of class may be applied even if the procedure for the assignment differs from above, but however deemed acceptable by the *Register*.

³⁾ In this case term "recognised classification society" comprises EU RO.

[No symbol] - this character of class may be assigned to existing ship at the occasion of initial class entry in cases other than above and in the following cases:

- M**
- .1 when the propelling and essential auxiliary machinery engines have not been manufactured under the supervision of the *Register*;
 - .5 when the propelling and essential auxiliary machinery engines have not been manufactured under the supervision of the recognized classification society;

under presumption that during the survey a thorough examination of existing machinery installation has been carried out with satisfactory results.

EXP - this character of class is to be assigned to a ship whose machinery installation is constructed in accordance with design, for which sufficient experience is not available. The *Register* will decide at what intervals the required surveys will have to be carried out. If the experience over prolonged period of time has proved the efficiency of design the character **EXP** may be cancelled.

4.4.3 Additional character of class denoting automation level. If applicable, one of the following is to be assigned:

AUT 1 - this character of class is to be assigned to a ship having automation level requiring unattended machinery spaces and control room.

AUT 2 - this character of class is to be assigned to a ship having automation level requiring unattended machinery spaces but requiring attended control room.

AUT 3 - this character of class is to be assigned to a ship having total machinery power output not exceeding 1500 [kW] and automation level requiring unattended machinery spaces. Notwithstanding above stated in the case of ships which are not intended for unrestricted navigation this class notation may be assigned even if total machinery power output exceeds 1500 [kW].

4.4.4 Additional characters of class **IGS** and **COW**. If applicable, one of the following is to be assigned:

IGS - this character of class is to be assigned to a ship equipped with inert gas system.
Oil tankers (**Tanker for oil** or **Product carrier**) having 20,000 tons deadweight and above intended for the carriage of liquid cargo with flash point below 60 °C (closed cup test) and all ships with crude oil washing arrangement regardless of their size shall be fitted with permanently installed inert gas system.

COW - this character of class is to be assigned to a ship equipped with crude oil washing system.
Ships carrying crude oil having 20,000 tons deadweight and above are to be fitted with cargo tank cleaning system using crude oil washing ar-

angement complying with MARPOL 73/78, Annex I, Reg. 33 and Reg. 35, which refers to "Revised Specifications for the Design, Operation and Control of Crude Oil Washing Systems", adopted by IMO Res. A.446(XI), as amended by A.497(XII) and as further amended by A.897(21). Additional requirements related to the assignment of this character of class are as follows:

1. General

.1 The crude oil washing system shall fully comply with the requirements of IMO Resolution A.446(XI), as amended by IMO Resolution A.497(XII) and as further amended by IMO Resolution A.897(21) within one year after the tanker was first engaged in the trade of carrying crude oil or by the end of the third voyage carrying crude oil suitable for crude oil washing, whichever occurs later (see 5.2).

.2 Every oil tanker operating with crude oil washing system shall be provided with an Operations and Equipment Manual detailing the system and equipment and specifying operational procedures, to the satisfaction of the *Register*.

.3 Every oil tanker fitted with a cargo tank cleaning system using crude oil washing shall be provided with an inert gas system, according to the *Rules, Part 17 - Fire protection*.

2. Piping

.1 The crude oil washing pipes and all valves incorporated in the supply piping system shall be of steel or other equivalent material and shall be of adequate strength having regard to the pressure to which they may be subjected, and shall be properly jointed and supported. Piping is to comply with the requirements of the *Rules, Part 8 - Piping*.

.2 The crude oil washing system shall consist of permanent piping and shall be independent of the fire mains and of any system other than for tank washing. A sections of the ship's cargo system may be incorporated in the crude oil washing system provided that they meet the requirements applicable to crude oil piping.

.3 Notwithstanding the requirements of 2.2, in combination carriers the arrangement of crude oil washing system may allow:

- .1 The removal of the equipment, if necessary, when carrying cargoes other than crude oil, provided that, when reinstated, the system is as originally fitted and tested for oil tightness;

- .2 The use of flexible hose pipes to connect the crude oil washing system to tank washing machines if it is necessary to locate these machines in a cargo tank hatch cover. Such flexible hose pipes must be provided with flanged connections and be manufactured and tested in accordance with the *Rules, Part 8 - Piping*. The length of these hoses shall be no greater than necessary to connect the tank washing machines to an adjacent point just outside the hatch coaming. These hoses shall be removed to suitably prepared and protected stowage when not in use and be pressure tested by an authority acceptable to the *Register* at intervals of not more than two and a half years.
- .4 Provision shall be made to prevent overpressure in the tank washing supply piping. Any relief device fitted to prevent overpressure shall discharge into the suction side of the supply pump. Alternative methods to the satisfaction of the *Register* may be accepted provided an equivalent degree of safety and environmental protection is provided.
- One such alternative is that where the system is served only by centrifugal pumps so designed that the pressure derived cannot exceed that for which the piping is designed, a temperature sensing device located in the pump casing is required to stop the pump in the case of overheating.
- .5 Where hydrant valves are fitted for water washing purposes on tank washing lines, all such valves shall comply with 2.1 and provision shall be made for such connections to be blanked off by blank flanges when washing lines may contain crude oil. Alternatively, hydrant valves shall be isolated from the crude oil washing system by spade blanks.
- .6 All connections for pressure gauges or other instrumentation shall be provided with isolating valves adjacent to the lines unless the fitting is of the sealed type.
- .7 No part of the crude oil washing system shall enter the machinery spaces. Where the tank washing system is fitted with a steam heater for use when water washing, the heater must be effectively isolated during crude oil washing by double shut-off valves or by clearly identifiable blanks.
- The steam heater referred to shall be located outside the machinery spaces.
- .8 Where a combined crude oil-water washing supply piping is provided the piping shall be so designed that it can be drained

so far as is practicable of crude oil, before water washing is commenced, into spaces designated in the Operations and Equipment Manual. These spaces may be the slop tank or other cargo spaces.

- .9 The piping system shall be of such diameter that the greatest number of tank cleaning machines required, as specified in 2.8, can be operated simultaneously at the designed pressure and throughput. The arrangement of the piping shall be such that the required number of tank cleaning machines to each cargo compartment, can be operated simultaneously.
- .10 The piping system shall be tested to 1.5 times the working pressure after it has been installed on the ship.
- .11 The crude oil washing supply piping shall be anchored (firmly attached) to the ship's structure at appropriate locations, and means shall be provided to permit freedom of movement elsewhere to accommodate thermal expansion and flexing of the ship. The anchoring shall be such that any hydraulic shock can be absorbed without undue movement of the supply piping.
- The anchors should normally be situated at the ends furthest from the entry of the crude oil supply to the supply piping. If tank washing machines are used to anchor the ends of branch pipes then special arrangements are necessary to anchor these sections when the machines are removed for any reason.
- 3. Tank washing machines**
- .1 The tank washing machines for crude oil washing shall be permanently mounted and shall be of a design acceptable to the *Register*.
- .2 The performance characteristic of a tank washing machine is governed by nozzle diameter, working pressure and the movement pattern and timing. Each tank cleaning machine fitted shall have a characteristic such that the sections of the cargo tank covered by that machine will be effectively cleaned within the time specified in the Operations and Equipment Manual.
- .3 Tank washing machines shall be mounted in each cargo tank and the method of support shall be to the satisfaction of the *Register*. Where the tank washing machines are positioned well below the deck level to cater for protuberances in the tank, consideration may need to be given to additional support for the machines and their supply piping.

- .4 Each machine shall be capable of being isolated by means of stop valves in the supply line. If a deck mounted tank washing machine is removed for any reason, provision shall be made to blank off the oil supply line to the machine for the period the machine is removed. Similarly, provision shall be made to close the tank opening with a plate or equivalent means.

Where more than one submerged machine is connected to the same supply line a single isolating stop valve in the supply line may be acceptable provided the rotation of the submerged machines can be verified in accordance with 3.11.1 or 3.11.3.

- .5 The drive units for the tank cleaning machines are to be an integral with the tank cleaning machine.
- .6 The number and location of the tank washing machines shall be to the satisfaction of the *Register*.
- .7 The location of the machines is dependent upon the characteristics detailed in 3.2 and upon the configuration of the internal structure of the tank.
- .8 The number and location of the machines in each cargo tank and oily mixture (slop) tank shall be such that all horizontal and vertical areas are washed by direct impingement or effectively by deflection or splashing of the impinging jet. In assessing an acceptable degree of jet deflection and splashing, particular attention shall be paid to the washing of upward facing horizontal areas and the following parameters shall be used:
- .1 For horizontal areas of a tank bottom and the upper surfaces of a tank's stringers and other large primary structural members, the total area shielded from direct impingement by deck or bottom transverses, main girders, stringers or similar large primary structural members shall not exceed 10 % of the total horizontal area of tank bottom, the upper surface of stringers, and other large primary structural members.
 - .2 For vertical areas of the sides of a tank, the total area of the tank's sides shielded from direct impingement by deck or bottom transverses, main girders, stringers or similar large primary structural members shall not exceed 15% of the total area of the tank's sides.

In some installations it may be necessary to consider the fitting of more than one type of tank washing machine in order to effect adequate coverage.

- .9 At the design stage the following minimum procedures shall be used to determine the area of the tank surface covered by direct impingement:

- .1 Using suitable structural plans, lines are set out from the tips of each machine to those parts of the tank within the range of the jets.
 - .2 Where the configuration of the tanks is considered by the *Register* to be complicated, a pinpoint of light simulating the tip of the tank washing machine in a scale model of the tank shall be used.
 - .3 Shadow diagrams must be on drawings the scale of which must be at least:
 - .1 1:100 for tankers of less than 100,000 tons deadweight,
 - .2 1:200 for tankers of 100,000 tons deadweight and above.
 - .4 The drawings must provide at least a plan view, a profile view and an end elevation for each tank, or for tanks considered to be similar.
 - .5 Sufficient detailed drawings of the vessel must be provided to check that all large primary structural members have been included.
 - .6 Guidelines for the assessment of shadow diagrams are given in 4.2.9 of Appendix III to IMO Resolution A.446(XI), as amended.
- .10 The design of the deck mounted tank washing machines shall be such that means are provided, external to the cargo tanks, which, when crude oil washing is in progress, would indicate the rotation and arc of the movement of the machine. Where the deck mounted machine is of the non-programmable, dual nozzle type, alternative methods to the satisfaction of the *Register* may be accepted provided an equivalent degree of verification is attained.
- .11 Where submerged machines are required, they should be non-programmable and, in order to comply with the requirements of 3.8, it must be possible to verify their rotation by one of the following methods:
- .1 By indicators external to the tank;
 - .2 By checking the characteristic sound pattern of the machine, in which case the operation of the machine shall be verified towards the end of each wash cycle.
- Where two or more submerged machines are installed on the same supply line, valves shall be provided

and arranged so that operation of each machine can be verified independently of the other machines on the same supply line;

- .3 By gas freeing the tank and checking the operation of the machine with water during ballast voyages.

The method of verification shall be stated in the Operations and Equipment Manual.

- .12 Fixed washing machines shall comply with the following:

- .1 Stresses in piping or deck supports which arise during washing operation or when immersed into liquid shall not exceed allowable stresses.
- .2 Machines shall be made of steel or other material which does not initiate sparking due to friction more than steel.
- .3 Machines shall be earthed through hull.

4. Pumps for crude oil washing system

- .1 The pumps supplying crude oil to the tank cleaning machines shall be either the cargo pumps or pumps specifically provided for the purpose.
- .2 The capacity of the pumps shall be sufficient to provide the necessary throughput at the required pressure for the maximum number of tank cleaning machines required to be operated simultaneously as specified in the Operations and Equipment Manual. In addition to the above requirement, the pumps shall, if an eductor system is fitted for tank stripping, be capable of supplying the eductor driving fluid to meet the requirements of 5.2.
- .3 The capacity of the pumps shall be such that the requirements of 4.2 can be met with any one pump inoperative. The pumping and piping arrangements shall be such that the crude oil washing system can be effectively operated with any one pump out of use.
- .4 The carriage of more than one grade of cargo shall not prevent crude oil washing of tanks.
- .5 To permit crude oil washing to be effectively carried out where the back pressure presented by the shore terminal is below the pressure required for crude oil washing, provision shall be made that such an adequate pressure to the washing machines can be maintained in accordance with 4.2. This requirement shall be met with any one cargo pump out of action. The minimum supply pressure required for crude oil washing shall be specified in the Oper-

ations and Equipment Manual. Should this minimum supply pressure not be obtainable, crude oil washing operations shall not be carried out.

- .6 Pumps shall be in accordance with the *Rules, Part 8 - Piping* and *Part 9 - Machines*.

5. Stripping system

- .1 The design of the system for stripping crude oil from the bottom of every cargo tank shall be to the satisfaction of the *Register*.
- .2 The design and capacity of the tank stripping system shall be such that the bottom of the tank being cleaned is kept free of accumulations of oil and sediment towards completion of the tank washing process.
- .3 The stripping system shall be capable of removing oil at a rate of 1.25 times the total throughput of all the tank cleaning machines to be operated simultaneously when washing the bottom of the cargo tanks or during any stage of the bottom washing as specified in the Operations and Equipment Manual.
- .4 Means such as level gauges, hand dipping and stripping system performance gauges as referred to in 5.9 shall be provided for checking that the bottom of every cargo tank is dry after crude oil washing. Suitable arrangements for hand dipping must be provided at the aftermost portion of a cargo tank and in three other suitable locations unless other approved means are fitted for efficiently ascertaining that the bottom of every cargo tank is dry. The cargo tank bottom shall be considered dry if there is no more than a small quantity of oil near the stripping suction with no accumulation of oil elsewhere in the tank. Level indicators system shall be of closed type (water-gas tight).
- .5 Every oil tanker required to be provided with segregated ballast tanks or fitted with a crude oil washing system, shall comply with the following requirements:
 - .1 Oil piping is to be so designed and installed that oil retention in the lines is minimised.
 - .2 Means shall be provided to drain all cargo pumps and all oil lines at the completion of cargo discharge, where necessary, by connection to a stripping device. The line and pump draining shall be capable of being discharged both to a cargo tank or a slop tank and ashore. For discharge ashore a special small diameter line shall be provided and shall be con-

nected outboard of the ship's manifold valves. The cross-sectional area of this line shall not exceed 10 % of that of a main cargo discharge line.

- .6 In crude oil tankers having individual cargo pumps in each tank, each pump having an individual piping system, dispensation from the required special small diameter line may be given in cases where the combined amount of oil left in the tank after stripping and the volume of oil in the piping system from the manifold to the tank is less than 0.00085 times the volume of the cargo tank. If a deep well cargo pump system is provided with an evacuating system for retained oil, the above consideration should also apply.
- .7 The means for stripping oil from the cargo tanks shall be by positive displacement pump, self-priming centrifugal pump or eductor or other methods to the satisfaction of the *Register*. Where a stripping line is connected to a number of tanks, means shall be provided for isolating each tank not being stripped at that particular time.
- .8 The internal structure of the tank shall be such that drainage of oil to the tank suction of the stripping system is adequate to meet the requirements of 5.2 and 5.4. Care shall be taken that both longitudinal and transverse drainage are satisfactory and shall be verified during the inspection.
- .9 Equipment shall be provided for monitoring the efficiency of the stripping system. All such equipment shall have remote read-out facilities in the cargo control room or in some other safe and convenient place easily accessible to the officer in charge of cargo and crude oil washing operations. Where a stripping pump is provided, the monitoring equipment shall include, as appropriate, a flow indicator, or a stroke counter or a revolution counter, and pressure gauges at the inlet and discharge connections of the pump or equivalent. Where eductors are provided, the monitoring equipment shall include pressure gauges at the driving fluid intake and at the discharge and a pressure/vacuum gauge at the suction intake.
- .10 The trim conditions for crude oil washing given in the Operations and Equipment Manual shall be adhered to.

4.4.5 Additional character of class **PMON** (Propeller Shaft Condition Monitoring) is to be assigned to a vessel fitted with propeller shaft specifically arranged either with oil or with water lubricated stern tube bearings, allowing the vessel to be granted with a reduced scope for complete propeller shaft surveys.

The requirements for the assignment of this character of class are given in the *Rules, Part 7 - Machinery installation*.

The requirements for the maintenance of this character of class are given in the *Rules, Part 1 - General requirements, Chapter 5 - Surveys of ships in service*.

4.5 REFRIGERATING PLANT

4.5.1 Main character of class for refrigerating plant denoting survey during construction and when after construction is maintained in a condition considered satisfactory by the *Register*. One of the following characters:

- ★R - is assigned to a ship if:
 - a) the refrigerating plant has been built under survey and to the satisfaction of the *Register* in accordance with the Rules, or
 - b) the refrigerating plant has been built in accordance with the Rules, but under survey and to the satisfaction of another recognized classification society.
- ★R - the refrigerating plant has been built under survey, in compliance with the rules and to the satisfaction of another recognized classification society.
- [No symbol] - the refrigerating plant has been built without survey of the *Register* or any other recognized classification society.

4.5.2 Additional characters of class denoting ability of refrigerating plant. If applicable, one or both characters are to be assigned:

- + - this character of class is assigned to a ship having the refrigerating plant with a cooling capacity sufficient to reduce on board the temperature of non-pre-cooled cargo during a period of time, providing preservation of the cargo.
- C - this character of class is assigned to a ship having the refrigerating plant with a cooling capacity sufficient to deliver pre-cooled air of the required temperature to refrigerated cargo containers during a period of time, providing preservation of the cargo.

4.5.3 For refrigerating plant a 5 year class term is required.

5 CLASSIFICATION PROCEDURE

5.1 REQUEST FOR CLASSIFICATION

5.1.1 A request for issuing the Certificate of class, i.e. a "Request for the classification" is to be submitted to the *Register* by the Owner (or by the Company) in writing.

5.1.2 Assigning class to ships having GT < 100 is subjected to special consideration of the *Register*.

5.1.3 Either the Owner (or the Company), or the *Register* can terminate as of right the requested service after giving the other party thirty days' written notice, for convenience, and without prejudice to the provisions in 5.6.2.3.

5.1.4 The class granted to the concerned ship and previously issued certificates remains valid until the date of effect of the notice issued according to 5.1.3 subject to compliance with 5.3.3 and 5.6.2.3.

5.2 ISSUING OF THE CERTIFICATE OF CLASS

5.2.1 After completion of the survey during construction, and when the attending Surveyor is of the opinion that all the requirements for the class assignment have been met, the Interim certificate of class shall be issued.

Interim certificate of class has 5 (five) months validity, i.e. until ship's class is verified by the Head Office of the *Register* through issuing the full term Certificate of class.

5.2.2 Survey during construction may be considered to be completed with some minor items unverified, provided that such items are stated as the conditions of class, including related time limits for their rectification. At the same time the attending Surveyor will document the completion of the survey during construction by issuing the Interim certificate of class and sending conditions of class to the Head Office of the *Register*.

5.2.3 In case of admission to class of an existing ship which has not been built under survey of the *Register*, or in the case of re-classification of an existing ship, the Interim certificate of class will be issued after the satisfactory completion of the Initial class entry survey, and when the attending Surveyor is of the opinion that all the requirements for the class assignment, or transfer of class have been met.

5.2.4 The class will be assigned to a ship and a full term validity Certificate of class will be issued to a ship after examination of the Surveyor's reports and records, and verification that the requirements of the Rules corresponding to the class have been met.

5.2.5 The Head Office may not issue the Certificate of class if it is presumed that all requirements of the Rules have not been fulfilled, even if the Interim certificate of class has been previously issued.

5.2.6 All new ships (ships contracted for construction on or after 1 July 2014) with a length of 24 meters and above will be assigned class only after it has been demonstrated that their intact stability is adequate for the intended service.

Adequate intact stability means compliance with standards laid down by the relevant Flag State Administration or those of the *Register* taking into account the ship's size and type. The level of intact stability for ships with length of 24 meters and above in any case should not be less than that provided by Part A of IMO Res. MSC.267(85) as applicable to the type of ship being considered.

Where other criteria are accepted by the Flag State Administration concerned, these criteria may be used for the purpose of classification.

Evidence of approval by the Flag State Administration concerned may be accepted for the purpose of classification.

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5.2.7 The *Register* reserves the right to add special description notes on the Certificate of class, as well as any other information or restrictions having influence on the ship operation relevant for the classification.

5.3 MAINTAINING THE VALIDITY OF CERTIFICATE OF CLASS

5.3.1 It is the responsibility of the Owner (or the Company) to ensure that all surveys necessary for the maintenance of class are carried out at proper time in accordance with the Rules.

5.3.2 Validity of the Certificate of class is determined with class term with a condition of surveys (Annual, Intermediate, Renewal, Docking, etc.) to be carried out in specified intervals as prescribed in the *Rules, Part 1 – General requirements, Chapter 5 - Surveys of ships in service*, and to be completed to the satisfaction of the *Register*.

After completion of Initial or Renewal survey to the satisfaction of the *Register*, the *Register* will issue the Certificate of class.

After completion of Annual and Intermediate surveys, to the satisfaction of the *Register*, the *Register* will endorse the Certificate of class.

5.3.3 The ship, machinery installations and related essential arrangements and systems are to be adequately manned and competently handled and maintained at a standard complying with the requirements of the Rules.

The ship is to be loaded and operated taking into respect distribution of cargo and ballast, if necessary to the securing of cargo, as well as to the operation of ship in heavy weather, including any limitation or restriction imposed by the *Register*.

5.3.4 Any damage or excessive wastage of the ship's structure (i.e. shell frames and their end attachments, shell plating, deck structure, deck plating, bottom structure, bottom plating, watertight bulkheads, oiltight bulkheads, hatch coamings and hatch covers) beyond allowable limits affecting ship's class are to be immediately and permanently repaired after the survey.

For locations where adequate repair facilities are not available, consideration may be given to allow the ship to proceed directly to repair yard. For such intended voyage discharging of the cargo and/or immediate temporary repairs may be required.

If concluded by the *Register* that such damage or wastage is not immediately affecting ship's class, it's safety and integrity, safety of the crew, passengers, or sea environment, the ship may be allowed to be temporarily repaired for a period to be defined, which as a result may have issuing of a new Certificate of class with a reduced period of validity, and/or imposing of appropriate conditions of class.

5.3.5 After the survey has been completed, the *Register* will send to the Owner (or to the Company) all reports concerning performed survey. Each condition of class will be assigned a due date for completion.

For ships subjected to Enhanced Survey Programme an Executive Hull Summary of the survey and results is to be issued to the Owner (or to the Company) and placed on board the ship for reference at future surveys. The Executive Hull Summary is to be endorsed by the Head Office of the *Register*.

5.3.6 The *Register* may, in cases of serious deficiencies, suspend or withdraw existing ship's Certificate of class and replace it with new certificate having reduced period of validity, during which such deficiencies are to be dealt with. In cases when deficiencies are of such extent that it is presumed that ship's class, it's safety and integrity, safety of the crew, passengers, or sea environment is endangered, the *Register* shall suspend or withdraw ship's Certificate of class and shall require the ship to be surveyed in the first port of call where necessary repairs are to be carried out.

5.3.7 Certificate of class as well as other documents issued by the *Register* (such as reports on surveys performed) to the ship are to be kept on board for the lifetime of a ship and should be readily available for the Surveyor.

5.4 PERIOD OF VALIDITY

5.4.1 Period of validity of the Certificate of class (class term) is normally not longer than 5 (five) years.

5.4.2 When the Renewal survey is completed:

- .1 Within 3 (three) months before the expiry date of the existing Certificate of class, the new Certificate of class shall be valid from the date of completion of the Renewal survey to a date not exceeding allowable period of validity of the Certificate of class counting from the date of expiry of the existing certificate.
2. After the expiry date of the existing Certificate of class, the new Certificate of class shall be valid from the date of completion of the Renewal survey to a date not exceeding allowable period of validity of the Certificate of class counting from the date of expiry of the existing Certificate of class.

- .3 More than 3 (three) months before the expiry date of the existing Certificate of class, the new Certificate of class shall be valid from the date of completion of the renewal survey to a date not exceeding allowable period of validity of the Certificate of class counting from the date of completion of the Renewal survey.

5.5 EXTENSION OF THE PERIOD OF VALIDITY

5.5.1 Under "exceptional circumstances"⁴⁾ the *Register* may grant an extension not exceeding 3 (three) months to allow for completion of the Renewal survey provided that the vessel is attended and that attending Surveyor(s) (refer to the *Rules, Part 1 – General requirements, Chapter 5 - Surveys of ships in service, 3.2.9*, also) so recommends after the following has been carried out:

- .1 Annual survey.
- .2 Re-examination of conditions of class.
- .3 Progression of the Renewal survey as far as practicable.
- .4 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 extension of dry-docking survey not exceeding 36-months interval provided the ship is without outstanding condition of class regarding underwater parts.

5.5.2 In the case that the Certificate of class will expire when the ship is expected to be at sea, an extension to allow for completion of the Renewal survey may be granted, provided there is documented agreement to such an extension prior to the expiry date of the Certificate of class, and provided that positive arrangements have been made for attendance of the Surveyor at the first port of call, and provided that the *Register* is satisfied that there is technical justification for such an extension. Such an extension shall be granted only until arrival at the first port of call after the expiry date of the Certificate of class.

However, if owing to "exceptional circumstances" the Renewal survey cannot be completed at the first port of call, the requirements stated in 5.5.1 may be applied, but the total period of extension shall in no case be longer than 3 (three) months after the original due date of the Renewal survey.

IACS PRICA.1.1.2

5.5.3 The period between inspections of the outside of the ship's bottom may be extended for a period not exceeding 3 (three) months (or one month for ships engaged on short

⁴⁾ "Exceptional circumstances" means unavailability of dry-docking facilities; unavailability of repair facilities; unavailability of essential materials, equipment or spare parts; or delays incurred by action taken to avoid severe weather conditions.

voyages) when a Certificate of class is extended under provisions stated in 5.5.1.

5.5.4 However, no extension should be permitted of 36 (thirty-six) months between any two such inspections. If the first ship's bottom inspection is carried out between 24 (twenty-four) and 27 (twenty-seven) months, then the 36-month limitation may prevent the Certificate of class being extended by the periods permitted in 5.5.3.

5.5.5 Other requirements regarding bottom survey of the ship are stated in the *Rules, Part 1 – General requirements, Chapter 5 - Surveys of ships in service, 2.4.*

5.6 SUSPENSION AND REINSTATEMENT OF CLASS IN THE CASE OF OVERDUE SURVEYS

5.6.1 The *Register* will notify the Owner (or the Company) that the Certificate of class becomes invalid, and that classification is automatically suspended if the following is not complied with:

- .1 When the Renewal survey has not been completed or is not under attendance for completion prior to resuming trading, by the due date.
IACS PRIC A.1.1
- .2 When the Annual survey has not been completed within 3 (three) months of the due date of the annual survey, unless the vessel is under attendance for completion of the Annual survey.
IACS PRIC A.1.2
- .3 When the Intermediate survey has not been completed within 3 (three) months of the due date of the third annual survey in each periodic survey cycle, unless the vessel is under attendance for completion of the Intermediate survey.
IACS PRIC A.1.3

Additionally, classification is automatically suspended and Certificate of class shall become invalid in the following cases also:

- .4 When conversions or alternations are carried out without the approval of the *Register* (as stated in 3.6).
- .5 If the *Register* has not been informed when the ship sustains damage or defect, as stated in 3.11.6.
- .6 If the ship is not loaded and operated to the conditions or limitations stated in the Certificate of class and other pertinent documents (e.g. draught, area of navigation, sea state condition, type of cargo, main engine power output).

In above mentioned cases classification will be reinstated upon satisfactory completion of the surveys due. Such surveys are to be credited from the date originally due. However, the ship is disclassified from the date of suspension until the date class is reinstated.

Such surveys are to be carried out are to be credited from based upon the survey requirements at the original

date due and not on the age of the vessel when the survey is carried out.

5.6.2 The ship's class will be subject to a suspension procedure in following cases:

- .1 When Continuous survey items due or overdue at time of Annual or Intermediate survey, have not been dealt with or postponed by agreement.
IACS PRIC A.1.4
- .2 When recommendations or conditions of class have not been dealt with, or postponed by agreement.
IACS PRIC A.2
- .3 When non-payment of fees occurs.
- .4 When the Owner (Company) fails to notify the *Register* on the voyage repairs and maintenance duly in advance.

5.6.3 Vessels laid-up: Vessels laid-up in accordance with the Rules prior to surveys becoming overdue need not be suspended when surveys addressed above become overdue.

However, vessels which are laid-up after being suspended as a result of surveys going overdue, remain suspended until the overdue surveys are completed.
IACS PRIC A.1.5

When a vessel is intended for a single voyage from laid-up position to repair yard with any periodical survey overdue, the vessel's class suspension may be held in abeyance and consideration may be given to allow the vessel to proceed on a single direct ballast voyage from the site of lay up to the repair yard, upon agreement with the Flag State Administration, provided the *Register* finds the vessel 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 vessels whose class was already suspended prior to being laid-up.
IACS PRIC A.1.8

In cases where the vessel has been laid up or has been out of service for a considerable period of time because of a major repair or modification, and the Owner (Company) elects to carry out only overdue surveys, the next period of class will start from the expiry date of the Renewal survey. If the Owner (Company) elects to carry out the next due Renewal survey, the period of class will start from the survey completion date.
IACS URZ7 2.1.3

5.6.4 Force Majeure: If, due to circumstances reasonably beyond the Owner (Company) or the control of the *Register* (limited to such cases as: damage to the ship, unforeseen inability of the *Register* to attend the ship due to the governmental 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, civil strife, acts of war, or other cases of force majeure) the ship is not in a port where the overdue surveys can be completed at the expiry of the periods allowed above, the *Register* may allow the ship to sail in class, directly to an agreed discharge port and, if necessary, hence, in ballast, to an agreed port at which the survey will be completed, provided that the *Register*:

- .1 Exams the ship's records.

- .2 Carries out the due and/or overdue surveys and examination of conditions of class at the first port of call when there is an unforeseen inability of the *Register* to attend the vessel in the present port, and
- .3 Has satisfied itself that the vessel 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 *Register* to attend the vessel in the present port, the master is to confirm that his ship 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 previously prescribed conditions.

IACS PRIC A.1.7

5.6.5 When a vessel is intended for a **demolition voyage** with any periodical survey overdue, the vessel's class suspension may be held in abeyance and consideration may be given to allow the vessel 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 class with conditions for the voyage noted may be issued provided the attending surveyor finds the vessel in satisfactory condition to proceed for the intended voyage.

IACS PRIC A.1.6

5.7 WITHDRAWAL OF CLASS

5.7.1 The decision to suspend or withdraw a ship's Certificate of class is made by the Head Office of the *Register*.

5.7.2 When the class of ship has been suspended for a period of 6 (six) months due to overdue surveys, recommendations and/or conditions of class, the class shall be withdrawn. A longer suspension period may be granted when the ship is not trading, as in cases of lay-up, awaiting disposition in case of casualty or attendance for reinstatement.

IACS PRIC A.4

5.7.3 Class may be also withdrawn at the Owner's (or the Company's) written request.

5.7.4 Upon the decision of the Head Office of the *Register* the class of the ship may be suspended or withdrawn if the Owner (or the Company) does not fulfil or fails to comply with the requirements stated in 5.3.6.

5.8 NOTIFICATION TO THE OWNERS AND FLAG STATES

5.8.1 The *Register* shall give timely notice to an Owner (or to a Company) about forthcoming surveys.

The omission of such notice however does not absolve the Owner (or the Company) from his responsibility

to comply with *Register's* survey requirements for maintenance of class.

5.8.2 The *Register* shall confirm in writing the suspension of class and reinstating the ship's class to the Owner (Company) and to the Flag State.

5.8.3 The *Register* shall confirm in writing the withdrawal of class to the Owner (Company) and to the Flag State.

5.8.4 For ships constructed on or after 1st July 1998 under SOLAS, Reg. II-1/3.1, confirmations according to 5.8.2 and 5.8.3 are to state that certain statutory certificates are implicitly invalidated by suspension / withdrawal of class.

IACS PRIC B.1

5.9 SUSPENSION AND REINSTATEMENT OF CLASS IN THE CASE OF OVERDUE RECOMMENDATIONS / CONDITIONS OF CLASS

5.9.1 Each condition of class will be assigned a due date for completion. The *Register* will notify the Owner of these dates and that the ship's class will be subject to a suspension procedure if the item is not dealt with, or postponement by agreement, by the due date.

Classification will be reinstated upon verification that the overdue recommendation / conditions of class have been satisfactorily dealt with, as stipulated for each particular case in 5.6.1, 5.6.2, 5.6.3, 5.6.4 or 5.6.5.

Such surveys are to be credited from the date originally due.

5.9.2 However, the ship shall be disclassified from the date of suspension until the date when the validity of the Certificate of class has been reinstated.

IACS PRIC A.2

5.10 DOUBLE CLASSED VESSELS

5.10.1 A double class ship is one which is classed by two class societies, where each one works as if it is the only society classing the ship, and does all surveys in accordance with its own requirements and schedule.

5.11 SUSPENSION AND REINSTATEMENT OF CLASS IN THE CASE OF DUALY CLASSED VESSELS

5.11.1 A dually classed vessel is one which is simultaneously classed by the *Register* and some other recognised classification society and where, when one of the societies undertakes class surveys, it also acts on behalf of the other society.

5.11.2 When a vessel is dually 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 working days.

5.11.3 The second society will, upon receipt of this advice, also suspend class of the vessel, unless it can otherwise document that such suspension is incorrect.

5.11.4 When either society decides to reinstate class, it is to inform the other society.
IACS PRICA.3

5.12 REGISTER BOOK

5.12.1 When the class has been assigned to a ship, its main particulars and class notation will be entered in the Register Book of the *Register*. Other than the main and additional characters of class, details related to the ship's hull, machinery installation and refrigerating plant are entered in the Register Book indicating ship's particulars, its deadweight, construction material, main and auxiliary machinery power output, etc.

Register Book is published periodically by the *Register*.

Data contained in the Register Book are regularly updated and are available on-line for public at large on the official web site of the *Register* also.

5.13 ASSIGNING THE DATE OF BUILD

5.13.1 The Certificate of class and the *Register Book* shall indicate the "Date of Build" as defined below:

- .1 **For New Construction** - the year, month and day at which the new construction survey process is completed shall be specified as the "Date of Build".

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

- .2 **After Modifications** - after modifications are completed, the "Date of Build" shall remain assigned to the ship.

Where a complete replacement, or addition of a major portion of the ship⁵⁾ is involved, the following shall apply:

- a) the "Date of Build" associated with each major portion of the ship shall be indicated, where it has been agreed that the newer structure shall be on a different survey cycle;
- b) survey requirements shall be based on the "Date of Build" associated with each major portion of the ship;
- c) survey due dates may be aligned at the discretion of the *Register*.

IACS PR11

5.14 DATE OF CONTRACT FOR CONSTRUCTION

The Rules that will be applied for class assignment to newconstruction are generally those being at force at the date of "contract for construction". For the purpose of defining the date of "contract of construction", the following shall apply:

5.14.1 The date of "contract for construction" of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.

5.14.2 The date of "contract for construction" of a series of vessels, including specified optional vessels 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 shipbuilder.

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

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

The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 (one) year after the contract to build the series was signed.

5.14.3 If a "contract for construction" is later amended to include additional vessels or additional options, the date of "contract for construction" for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a "new contract" to which 5.14.1 and 5.1.4.2 above apply.

5.14.4 If a "contract for construction" is amended to change the ship type, the date of "contract for construction" of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

IACS PR29

⁵⁾ For example, a major portion of the ship may include a complete forward or after section, a complete main cargo section (which may include a complete hold / tank of a cargo ship), a complete block of deck structure of a passenger ship or a structural modification of a single hull to a double hull ship.

5.15 DATE OF INITIAL CLASSIFICATION

5.15.1 As a general rule, for newbuildings the date of initial classification coincides with date of build.

5.15.2 For the definition of the date of initial classification for existing ships see the *Rules, Part 1 – General requirements, Chapter 2 - Survey during construction and initial survey, 2.5.*

5.16 DATE OF DELIVERY UNDER SOLAS AND MARPOL CONVENTIONS

Interpretation

Under certain provisions of the SOLAS and MARPOL Conventions, the application of regulations to a new ship is governed by the dates:

- .1 For which the building contract is placed on or after dd/mm/yyyy, or
- .2 In the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after dd/mm/yyyy, or
- .3 the delivery of which is on or after dd/mm/yyyy.

For the purpose of determining the application of mandatory requirements of the SOLAS and MARPOL Conventions to a new ship, the date of "delivery" means the completion date (day, month and year) of the survey on which the certificate is based (i.e. the initial survey before the ship is put into service and certificate issued for the first time) as entered on the relevant statutory certificates.

IACS UI SC256, IACS UI MPC100

NOTE: For the sake of interpretation of performance standards for Voyage Data Recorders (VDRs) under IMO Res. MSC.333(90) regarding the term "installed on or after 1 July 2014" provisions of IACS UI SC261 should be followed. However, and notwithstanding above stated the *Register* will, before applying IACS UI SC261, require a specific written instruction of this interpretation from the Flag State Administration.

IACS UI SC261

5.17 KEEL LAYING DATE

Interpretation

For the purpose of the application of the IMO Conventions and Codes (Performance Standards, Technical Standards, Resolutions and Circulars) for:

- .1 Steel ships the term "*the keel of which is laid or which is at a similar stage of construction*" should be interpreted under provisions of MSC-MEPC.5/Circ.8. The term "*under similar stage of construction*" means the stage at which:
 - a) construction identifiable with a specific ship begins; and
 - b) assembly of that ship has commenced comprising at least 50 tonnes or one per cent of the estimated mass of all structural material, whichever is less.
- .2 Fibre-Reinforced Plastic (FRP) Craft, the term "*the keel of which is laid or which is at a similar stage of construction*" should be interpreted as the date that the first structural reinforcement of the complete thickness of the approved hull laminate schedule is laid either in or on the mould.

IACS UI HSC9, IACS UI LL78, IACS UI MPC104

6 APPLICATION OF STATUTORY REQUIREMENTS

6.1 When authorized by the Flag State Administration concerned, the *Register* will act on its behalf within the limits of such authorization. In this respect, the *Register* will take into account the relevant national requirements, survey the ship and issue or contribute to issue of the corresponding certificates.

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

6.3 In the case of a discrepancy between the provisions of the applicable international and national regulations and those of the Rules, the former shall take precedence.

6.4 In statutory matters in the course of statutory certification on behalf of Flag State Administrations the *Register* applies available IACS Unified Interpretations (IACS UI).

Notwithstanding above stated, IACS UIs shall only be applied to ships whose Flag State Administrations have not issued different and/or definite instructions on the interpretations of IMO regulations concerned, i.e. when the Flag State Administration has not provided written instruction to apply different interpretation.

The *Register* ensures the application of IACS UIs:

- .1 with direct inclusion of IACS UIs in the *Rules for the classification of ships* of the *Register*, or
- .2 with appropriate provision in the contracts for statutory certification services with the Flag State Administrations, or
- .3 with inclusion of a requirement, in the *Rules for the classification of ships* of the *Register* mandating compliance with particular IACS UI.

This does not require the application of IACS UIs to ships retroactively, except for those UIs which explicitly require retroactive application.

IACS PR31

6.5 For ships, the arrangement and equipment of which are required to comply with the requirements of:

- .1 *International Convention on Load Lines, 1966, (ILLC 66)*,
- .2 *International Convention for the Safety of Life at Sea, 1974 (SOLAS 74)*,
- .3 *International Convention on Tonnage Measurement of Ships (TMC 69)*,
- .4 *International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78)*,
- .5 *International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)*,

- .6 *International Safety Management Code (ISM Code)*,
- .7 *International Ship and Port Facility Security Code (ISPS Code)*,
- .8 *Applicable conventions of the International Labour Organization (ILO)*,
- .9 *International Convention On The Control Of Harmful Anti-Fouling Systems On Ships*,
- .10 *Maritime Labour Convention, 2006 (MLC 2006)*,
- .11 *Convention for the Control and Management of Ships' Ballast Water and Sediments*,
- .12 *International Code for Ships Operating in Polar Waters (Polar Code)*,

and applicable amendments thereto, the *Register* requires that the applicable statutory certificates are to be issued by the *Register*, Flag State Administration, or by some other recognised organisation if so authorised by the Flag State Administration.

6.6 In the case of dually or double classed ships, statutory certificates may be issued by the other classification society with which the ship is classed, provided that this is recognized in a formal dual or double class agreement with the *Register*, and provided that the other classification society is authorized by the relevant Flag State Administration.

7 EXTERNAL AUDITS / INSPECTIONS

7.1 In cases of external audits or inspections of processes of the *Register*, for the certification of the *Register* and in order to verify compliance of such processes against applicable rules, regulations and quality standards, and in addition to stated in 3.12, the following parties have for access to the information:

- .1 authorised representatives of the Flag State Administration;
- .2 authorised audit teams (i.e. Accreditation Body or EC auditors).

NOTE: According to the Regulation (EC) No. 391/2009 of the European Parliament and of the Council on common rules and standards for ship inspection and survey organisations, the issue of statutory certificates or class certificates to a ship is conditional on the parties not opposing the access of the Commission inspectors on board ships for the purposes of Article 8(1) of said Regulation.

7.2 For that purpose representatives / auditors may accompany Surveyors of the *Register* at any stage of their classification and/or statutory work, which may necessitate the representatives / auditors having free access to the ship, or to the premises of the manufacturer / shipbuilder. Shipowners, Companies, Shipyards or manufacturers shall provide representatives / auditors with the safe access to the premises / ship.