GENERAL PROVISIONS
ON TECHNICAL SUPERVISION ACTIVITIES

RULES

FOR CLASSIFICATION AND CONSTRUCTION OF VESSELS

PART I. CLASSIFICATION

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Shipping Register of Ukraine.

General provisions on technical supervision activities.

Rules for classification and construction of vessels. Part I "Classification". Volume 1

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Official edition of Shipping Register of Ukraine

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GENERAL PROVISIONS ON TECHNICAL SUPERVISION ACTIVITIES

1. GENERAL PROVISIONS

1.1 AREA OF DISTRIBUTION

1.1.1

These General provisions on the technical supervision activities apply to classification and other activities of classification society Shipping Register of Ukraine[1] carried out during:

- review and approval of technical documentation for the construction, repair, re-equipment and modernization of vessels and stationary offshore platforms[2], manufacture of materials and products for ships and SOPs;
- technical supervision over the construction, repair, re-equipment and modernization of vessels and SOPs;
- survey of vessels and SOPs in operation.

1.2 TECHNICAL SUPERVISION ACTIVITIES

1.2.1

The Register is the national classification society which carries out technical supervision and classification of civilian seagoing ships, vessels of combined and inland navigation and small ships. The Register is a member of the International Association of Technical Supervision and Classification Institutions (TSCI) and takes into account in its activity decisions of TSCI ethics and standards TSCI.

The Register has a quality management system that meets the requirements of the applicable standard of Ukraine of ISO 9001 (ISO 9001), as confirmed by the relevant certificate.

The Register, also, by order and on behalf of the Government of Ukraine or on behalf of other governments carries within its competence surveys in accordance with international conventions, agreements and contracts, IWSolving these countries.

1.2.2

The Register is an independent organization of technical experts. Register acts impartially and neutrally.

1.2.3

The Register establishes technical requirements ensuring safe conditions of navigation of ships according to their purpose, the protection of human life and the preservation of cargoes carried at sea and on inland waterways, prevention of pollution from ships, performs surveys in accordance with these requirements, classifies ships and SOPs establishes gross and net tonnage of sea ships and vessels of combined navigation and tonnage characteristics of inland navigation vessels and small ships under the technical supervision of the Register, as a result of ships measurement.

[1] Hereinafter - Register.
[2] Hereinafter - SOPs.

1.2.4

The Register's activity on technical supervision is based on the Regulations published by the Register and is intended to determine whether vessels and SOPs that are registered by the Register, as well as materials and products intended for construction and repair of ships and SOPs and their equipment are in compliance with the Regulations and additional requirements. Application and implementation of the Rules and additional requirements is the responsibility of design organizations, shipowners, shipyards and companies that manufacture materials and products, which are subject to the requirements of the Regulations.

Interpretation of the requirements of the Rules and other regulatory documents of the Register is the responsibility solely of the Register.

The Register activity does not replace the activities of public authorities in the field of transport and in fisheries on state supervision for merchant shipping and technical control activities of shipowners, shipyards and manufacturers.

1.2.5

The Register's classification activities include: the development and publication of the Rules and other regulations;

review and approval of technical documentation;

carry out of surveys during the construction, re-equipment, upgrading and repair of ships and SOPs in the manufacture and repair of products and production of materials used in shipbuilding;

carry out of surveys of ships and SOPs in operation;

assignment and renewal of class;

development and issue of the Register's documents.

1.2.6

Other activities of the Register include:

surveys of vessels and SOPs during the construction, re-equipment, upgrading and repair, as well as the manufacture and repair of products and production materials used in shipbuilding, in accordance with the international conventions and agreements;

surveys of vessels and SOPs in operation in accordance with the international conventions and agreements;

registration of ships and SOPs;

IWSestigation and registration of accidents on ships and SOPs;

initiative ships surveys, including surveys on Port State Control / Flag State requirements;

expertise on technical issues;

other activities not related to the classification of ships and SOPs.

1.2.7

Endorsement or certification of compliance of ships and SOPs, as well as ship's equipment, materials and products that are the objects of technical supervision with the requirements of the regulations and standards of the Register is exclusively the competence of the Register.

Any documents or statement that during the construction of the vessel or SOP, or manufacture of marine equipment, materials and products that are subject to technical supervision regulations of the Register were adhered are not valid unless appropriate certificates or certificates of the Register have been provided.

1.2.8

Application of Rules for classification and construction of vessels and SOPs does not apply to possible claims for protecting the rights of third parties.

1.2.9

The Register classifies civilian sea and river (sea, mixed (sea-river and river-sea) and inland navigation, small) vessels and SOPs and carries out technical supervision of these vehicles and SOPs in the construction and operation, except sport vessels and vessels of State Fish Industry Agency (self-propelled - with main engine capacity of less than 55 kW, non-self-propelled - with a gross tonnage of less than 80 register tons), and besides, ships and boats with a maximum length of the hull of 2.5 meters, except watercrafts, water cycles, including "bananas" and the alike; surfboards, including those with a sail or drive; antique and historical ships and their copies labeled as such by the manufacturer; canoes, kayaks, gondolas and water bikes.

Application of Rules for classification and construction of vessels to a specific vessel, depending on her type and purpose, is carried out according to their area of distribution pursuant to 1.3 of Part I "Classification" of these Rules.

1.2.10

The Register carries out the survey of ship's refrigeration plants regarding ship safety, proper transportation, prevention of refrigerating agent impact on the environment concerning ozone depletion and classifies refrigeration plants on vessels.

1.2.11

The Register carries out surveys of ship's cargo handling gear with lifting capacity 1 ton or more.

1.2.12

Technological devices and special gears of fishing, cable, technical and special-purpose fleet vessels are not subject to supervision of the Register, except for equipment specified in the relevant parts of the Rules.

1.2.13

The Register considers and approves standards and other regulatory documents related to its activities. Standards and regulations applied without prior approval of the Registers are considered by the Register for compliance with the applicable requirements of Rules within the scope of the technical documentation provide for approval.

1.2.14

The Register may perform expertise and participate in examination of technical matters within the scope of its activities.

1.2.15

The Register publishes the register book of ships, which contains information about vessels longer than 24 meters, regardless of type and purpose, and on passenger ships, icebreakers, tugs, pushers, floating cranes, ships of industrial fleet, special purpose ships and vessels for the carriage of dangerous goods regardless of their length having the Register class.

1.2.16

Works (services) of the Register are paid according to the rates determined in accordance with the current pricing of the Register. Works are also paid in cases where it turns out the impossibility of achieving the results that the client wants, including the classification of the vessel or SOP facility due to non-compliance with the established requirements, regardless of the date of establishment of the non-conformity. In the case of non-performance or improper performance of obligations to the Register, including payment of services the Register has the right to delay the issue of certificates and other documents not to assign the class or when the class is already assigned, suspend or cancel the class of the vessel for which the duty to the Register is not executed or executed improperly, including remuneration, and withdraw (make record on the IWS validity) documents issued by the Register.

1.3 RULES

1.3.1

Applicable Rules.

1.3.1.1

The Register developed, approved, published and applies in its activity on technical supervision the following Rules :

.1 Rules for classification and construction of vessels, consisting of Part I «Classification» and Rules:

Rules for Classification and Construction of Sea-Going Ships;

Rules for Classification and Construction of Combined Navigation Vessels;

Rules for Classification and Construction of Inland Navigation Vessels;

Rules for Classification and Construction of Small Crafts;

.2 Rules for Equipment Sea-Gong Ships;

.3 Load Line Rules for Sea-Going Ships;

.4 Rules for Cargo Appliances of Sea-Going Ships;

.5 Rules for Classification, Construction and Equipment of Mobile Offshore Drilling Units and Stationary Offshore Platforms;

.6 Rules for Classification and Construction of Habitable Underwater Apparatuses, Ship Diving Systems and Passenger Submersibles;

.7 Regulations for Pollution Prevention from Ships;

.8 Rules for Carriage of Grain;

.9 Rules for Construction of Ships Hulls and Floating Structures Using Reinforced Concrete;

.10 Rules for Measurement of Sea-Going Ships and Inland Navigation Vessels;

.11 Rules for Measurement of Inland Navigation Vessels;

.12 Rules for Construction of Ships Using the Elements of the Donor Vessels, Which Were in Operation;

.13 Rules for Reconstruction of Inland and Combined Navigation Vessels;

.14 Rules for Technical Supervision over the Construction of Ships and Manufacture of Materials and Products;

.15 Rules for Ships Survey;

.16 Rules for Survey of Small Ships in Operation;

.17 Guidence for Survey of Ships in Operation;

.18 Guidence for Technical Supervision over Mobile Offshore Drilling Units and Stationary Offshore Platforms.

1.3.1.2

In addition to the Rules mentioned in 1.3.1.1, the Register also applies in its activities on technical supervision the following rules and other regulations, including Rules of foreign Classification societies:

.1 Rules for Classification and Construction of Chemical Carriers;

.2 Rules for Classification and Construction of High-Speed Vessels;

.3 Suez Measurement Rules;

.4 Rules of Ships Measurement for Panama Canal;

.5 Other External Regulations Recognized by the Register.

1.3.1.3

The Register also develops, publishes and uses in its activity guidence on survey of vessels and SOPs, materials and products used in shipbuilding, and other guidence and technical requirements that regulate pursuant Register activity elsewhere.

1.3.2

Application of Rules to ships and SOPs in construction, materials and products.

1.3.2.1

Newly issued rules and changes to the Rules, take effect from the date of their entry into force specified in annotations on the back of the title page. Pending the entry into force, they are advisory in nature.

1.3.2.2

For new vessels and SOPs, which are constructed on the projects approved by the Register are usually used rules and changes to them, acting on the date of signing the contract for the construction of the ship (series of similar vessels) or SOPs respectively.

If the vessel /SOP project is submitted for the approval of the Register prior to signing the contract for the construction and in the absence of a contract, the rules and changes to them, acting on the date of application of the client for project approval are applied. In this case, if on the date of signing the contract for construction of the vessel / SOP new rules or changes to them in accordance with which the project of the vessel / SOP was approved entered into force, the project should be corrected taking into account the requirements of these regulations or changes.

1.3.2.3

Materials and products, which technical documents are submitted for approval of the Register after the entry into force of Regulations or changes made to the Regulations must comply with these Regulations and changes.

1.3.3

Application of Rules to ships and SOPs in operation.

1.3.3.1

Ships and SOPs in operation are subject to the requirements of the amended Regulations, according to which they were built, unless otherwise indicated in the following publications of Regulations or bulletins of additions and amendments to the Regulations issued after the publication of Regulations.

1.3.3.2

Ships and SOPs in operation classified by the Register for the first time, are subject to the requirements of the Register Rules in force at the time of construction of the ship / SOP with taking into account the requirements of the folllowing editions of the Regulations that are applied to vessels and SOPs in operation..

1.3.3.3

The use of newly issued Rules for ships and SOPs in operation at their reconstruction after accidents or in other similar cases, as well as re-equipment, is established by the Register taking into account technical feasibility and validity in each case.

1.3.4

Equivalent replacement.

1.3.4.1

The register may consent to the use of materials and products, construction of the ship, SOPs or their separate gears other than stipulated by the Rules, provided that they are not less effective compared to defined in the Rules; while equivalent replacement for vessels and SOPs, which are covered by international conventions or agreements may be admitted by the Register only in cases where such an equivalent replacement admitted these conventions and agreements and the conditions under which these conventions and agreements provided such exemption .

In these cases, the Register should be provided with data that allow to establish compliance of these materials, designs and products with conditions which ensure the safety of the ship and SOP, protection of human life, reliable transportation at sea and on inland waterways and the prevention of environment pollution from ships .

1.3.4.2

If the design of the vessel and SOP, individual mechanisms, appliances, systems, equipment, software or materials used can not be considered sufficiently proven in operation, the Register may require special tests during construction and during operation can reduce the time between periodic surveys or increase the volume of these surveys.

If the Register recognizes this necessary, appropriate records of limitations may be made to the classification or other documents issued by the Register, and to the register book. Restrictions removed after obtaining satisfactory results during the operation.

1.4 DOCUMENTS

1.4.1 As a result of technical supervision the Register issues appropriate documents:

.1 Certificates confirming compliance with the requirements of Rules for classification and construction of vessels and rules for classification and construction of certain types of vessels;

.2 Certificates certifying the suitability of the vessel for sailing and provided by the Code of merchant shipping;

.3 Certificates provided by the international conventions, codes and other international instruments;

.4 Reports on survey that are the basis for the issue of appropriate certificates;

.5 Documents on materials and articles that confirm their compliance with the Rules of the Register.

Any vessel documents issued by the ship's Register on behalf of the Flag Administration of the vessel are issued on the terms and in form that specified by thhe appropriate instructions or regulations under which these documents are issued.

1.4.2

The document confirming compliance of the vessel with the provisions of the European Parliament and of the Council 2009/45/EC of 6 May 2009 concerning the rules and safety standards on passenger ships on inland waterways, sea (coastal) navigation, hereinafter Directive 2009/45 / EC, with signs of navigation area under Part I of 2.2.5.1.5 "Classification" Rules for classification and construction of vessels is Passenger Ship Safety Certificate.

The document confirming compliance with the provisions of Directive 2009/45 / EC of the high-speed passenger vessel, which under the Directive must meet the requirements of the Code of Safety for High Speed Craft with the implementation of the Rules for classification and construction of high-speed vessels is High-speed Vessels Safety Certificate and the document for such vessel, which must meet the requirements of the Code of Safety for Dynamically Supported Crafts is Safety construction, equipment and supply certificate for Dynamically Supported Craft.

The Administration of the Flag State pursuant to Article 13 of Directive 2009/45 / EC is issued a permit to operate a high-speed craft and permit to operate a dynamically supported craft.

Guidelines for issue a certificate to confirm compliance of the ship with the provisions of Directive 2009/45 / EC are set out in 2.6.1.

1.4.3 The Register under the authority of the Government of Ukraine on inland vessels navigating on the Danube additionally issues:

Ship Certificate – for ships:

- with maximum hull length of 20 m or more;
- L x B x T of which is the volume of 100 m3 or more; tugs and / or pushers intended for towing, pushing the vessels referred to above, or bring them in motion on the part of the board;
- passanger,
- intended for use on inland waterways in accordance with European rules of navigation and classified in accordance with the Rules of IWS, which allows for regulations adopted by the Resolution of 68th session of the Danube Commission (doc. SC / SES 68/7) and entered into force on 1 January 2008 ., "Recommendations on Technical Requirements for Inland Navigation Vessels" in the version amended in 2011 and annexed to Resolution №61 UNECE "Recommendations concerning coordinated at European level technical requirements applicable to inland navigation vessels", as amended except for the provisions of chapter 23 "Crews", in Section 23.9 and Annex 3 (distress signs and signals), except fire warning signs, and 5 (service book), in accordance with

the Convention on the regime of navigation on the Danube in 1948,

- except ferries;

The Communityt Certificate for inland navigation vessels is issued to vessels laid down on Dec. 30, 2008 or after, after inspection, carried out before the introduction of vessel in operation in order to verify compliance of the vessel with the technical requirements set by Annex II to the Directive of the European Parliament and of the Council 2006/87 / EC by the competent authority of any Member State or of a non-member of the EU, which decided on the application of Directive 2006/87 / EC. Technical examination by the competent bodies that may not perform survey in respect of vessels or parts, in the event of valid certification carried out by a recognized according to the criteria set out in Part 1 of Annex IV classification society confirming full or in part compliance with the technical requirements of Annex II Directive. When performing technical inspection the Register will verify compliance of the vessel with requirements of the IWS regulations, taking into account the provisions of Annex II to the Directive of the European Parliament and Council 2006/87 / EC of 12 December 2006, which provides technical requirements for inland navigation vessels which entered into force on December 30, 2008 At the date of approval of this document Ukraine has not taken a decision on the application of Directive 2006/87 / EC;

Certificate of Approval ADN or Temporary Certificate of Approval ADN - for the vessel that meets the requirements of Part XIII «Vessels for carriage of dangerous goods" of IWS Rules, which take into account the requirements for vessels of the new consolidated edition of the "European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways" and annexed Regulations ("ADN 2013"), revised regulations of which entered into force on 1 January 2013, with the different applicable Regulations from 30 June 2011;

Certificate of Fitness of the radar for operation on the Danube, Certificate for the Accuracy of Installation and Precision of Operation of Radar and Rate of Turn Operator - for radars, rate of turn operators and vessel equipped with them, according to the "Recommendations of the main technical and operational parameters of radar used in shipping on the Danube ";

Suez Canal Special Tonnage Certificate - for the vessel measured in accordance with the rules of Suez measurement Regulations, to pass the Sulina canal;

Measurement certificate for Inland Navigation Vessels – for the vessel measured according to "The Convention on the Measurement of Inland Navigation Vessels", 1966 and "Rules of measurement of inland navigation vessels".

1.4.4

Vessels intended for the carriage of goods on inland waterways of Ukraine, measured according to the «Rules of measurement of inland navigation vessels» with the issue of **Measurement certificate for Inland Navigation Vessels.**

1.5 RESPONSIBILITY OF THE REGISTER

1.5.1

The Register carefully selects its surveyors and all others which ensure that the Register performs its functions, and authorizes to provide services to professionals who have sufficient skills and perform their functions with due diligence.

1.5.2

The Register is responsible for failure or improper fulfillment of its duties in the amount not exceeding the amount paid under the contract (IWSoice) for services provided by the Register and only if is proven causal link between the failure or improper Register fulfillment of contractual obligations and counterparty losses in this respect.

1.5.3

The Register is not liable for losses of the client, incurred in connection with the use of his rights specified in 1.2.16. The Register's responsibility to the client for indirect losses is excluded.

1.6 PRIVACY

Register maintains confidentiality regarding all documents and other information provided to it in connection with the submitted applications for the provision of services. Transfer of documents and information to third parties only with the written consent of the authorized persons in each case of the party filed an application, except in cases where such transfer associated with obtaining official permits and documents for the contract (agreement) or payment of taxes, other obligatory payments, and in cases stipulated by the current legislation governing the obligations of the Parties. The authority must be proved in each case.

Duties of the Register to the authorities of the Flag State in accordance with existing agreements between the Register and Flag State remain unaffected.

1.7 TERMS OF PROVISIONS

IWSalidation of certain provisions of the General Conditions does not entail IWSalidation of other provisions and general conditions in general.

In case of doubt about the interpretation of provisions of these General Conditions text in Ukrainian shall prevail.

2. TECHNICAL SUPERVISION

2.1 GENERAL INSTRUCTIONS

2.1.1

To perform technical supervision shipowners, shipyards administration, manufacturers and other businesses should provide opportunity for inspectors of the Register to survey vessels and SOPs, free access to all places where the works related to the manufacture and testing of materials and products, and ensure that the necessary conditions of the surveys carry out.

If necessary, under the submission of the Register representatives Register should also be provided with access to facilities subject to supervision and conditions for carry out works on verification of the quality system of the company.

2.1.2

Shipowners, shipyards, design firms and manufacturers are obliged to fulfill the requirements of the Register or inspectors in the exercise of their activities.

2.1.3

Any changes concerning the materials and construction of the ship, SOP and products, which are subject to the requirements of Regulation carried out by shipowners, shipyards, engineering companies and manufacturers must be approved by the Register prior to their implementation.

2.1.4

Disputes arising from the activity of the Register technical supervision and do not find a solution in the Regional Representation of the Register may be submitted by shipowners, shipyards, manufacturers and other enterprises directly to the Head Office of the Register. The decision of the Head Office of the Register is final.

2.1.5

The Register may refuse to survey in cases where the shipyard or manufacturer systematically violates the rules, and if the party which has entered into an agreement with the Register of surveillance does not perform its contractual obligations.

2.1.6

In identifying defects in material or product that has a valid document the Register may require additional tests or corrections, and if it is impossible to rectify the defects may cancell the document.

2.2 SUPERVISION OVER MANUFACTURING OF MATERIALS AND PRODUCTS

2.2.1

The relevant part of the rules provide lists of materials and products, the manufacture of which must be carried out under the supervision of the Register and the manufacturing processes regulated by the Register .

Register by special agreement may supervise over the manufacture of materials and products not listed in the above lists.

2.2.2

Manufacturing of materials and products that are subject to supervision of the Register must be carried out according to the technical documentation approved by the Register.

2.2.3

In the exercise of supervision the Register may check implementation of structural, technological and industrial standards and processes that are not regulated by the Rules, but affect the requirements of the Rules.

2.2.4

Application of new or first provided to the Register materials, products or processes which are subject to supervision of the Register in the construction and repair of ships and SOPs, manufacturing materials and products must be approved by the Register. To do this, samples of materials, products or new processes after the approval of the technical documentation by the Register shall be subjected to tests to the extent agreed with the Register.

2.2.5

Supervision of the Register over manufacturing of materials and products is carried out by its inspectors or can be delivered be the Register to other classification organization based on the Agreement on mutual substitution.

2.2.6

In cases set by the register the company-manufacturer is subject to audit by the Register for verification capabilities of the enterprise to produce materials and products that meet the requirements of the Register.

2.2.7

In the process of supervision over manufacturing materials and products must be subjected to the necessary tests and examinations in the prescribed by the Register manner and extent.

2.2.8

Materials and products manufactured under the supervision and in accordance with the requirements of the Register shall have the documents established by the Register and, where appropriate, stamps proving its supervision during their manufacturing, and labeling that allows them to establish compliance with these documents.

2.2.9

In justified cases the Register may for individual products set special conditions for their use.

2.3 SUPERVISION OVER CONSTRUCTION, RENEWAL OR RE-EQUIPMENT OF VESSELS AND SOPs.

Supervision over construction, renewal or re-equipment of vessels and SOPs is carried out by inspectors of the Registeron the basis of technical documentation approved by the Register.The volume of surveys, measurements and tests carried out in the course of supervision, is established by the Register on the basis of existing instructions depending on the amount of design changes made on the vessel, taking into account the overall impact on technical specifications of the vessel in general.

2.4 SURVEY OF VESSELS AND SOPs IN OPERATION

Survey over vessels and SOPs in operation is conducted in accordance with the Rules for survey of Ships, Guidance on survey of sea ships in operation and other regulations of the Register.

Shipowners must observe the deadlines and other periodic surveys prescribed by the Register and properly prepare the ship or SOP for survey and urgently declare to the Register of all emergency cases and repairs of hull, machinery or equipment, subject to the requirements of the Rules that occurred between the surveys.

2.5 SURVEYS IN ACCORDANCE WITH INTERNATIONAL CONVENTIONS AND AGREEMENTS

2.5.1

General.

The relevant Regulations include requirements of documents and amendments thereto, including the International Convention for the Safety of Life at Sea 1974 and the Protocol of 1978 and 1988 to it, including applicable therein Codes of Protocol 1978 to the International Convention for the Prevention of Pollution from Ships 1973 as amended by the Protocol in 1997, the International Load Line Convention1966 and the Protocol of 1988 thereto, as revised in 2003, the International Tonnage Convention 1969, Occupational Safety and Health (Dock Work) Convention 1979 (ILO 152), the Convention on the regime of navigation on the Danube 1975, the Convention on the measurement of inland navigation vessels 1966, the International

Regulations for the Prevention of Collisions at Sea 1972, the Radio Regulations 2012, International Code of construction and equipment of ships carrying Dangerous Chemicals in Bulk and the International Code of construction and equipment of ships carrying liquefied gases in bulk, the International Code of Safety of High Speed Craft, Code of construction and equipment of mobile offshore drilling units, the Code of Safety for special purposes vessels , Code of Safety for Diving Systems, existing intergovernmental agreements on Load Lines, European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways 2000, Directive 2009/45 / EC concerning rules and safety standards on passenger ships of inland (coastal) navigation 2009 and a number of other regulatory documents used in international and ship practice.

The provisions of these conventions and agreements applicable to ships engaged in international voyages unless otherwise indicated in the Rules of the Register,and the provisions of Directive 2009/45 / EC to the inland sea (coastal) navigation.

2.5.2

Surveys of objects that fall under the requirements of international conventions, codes and agreements are carried out according to the approved technical documentation and normative documents of the Register, taking into account the requirements of specified conventions, codes and agreements. Surveys of vessels in accordance with international conventions and agreements on the issue of appropriate documents are in accordance with the provisions of Part IV «Survey of ships under international conventions, codes and resolutions and treaties, directives and resolutions for inland waterways of Europe" Rules of the Survey of Ships.

2.6 CONFIRMATION OF COMPLIANCE

2.6.1

Conformity in accordance with EC Directives.

2.6.1.1

General provisions

2.6.1.1.1

The provisions of the Directive of the European Parliament and Council Directive 2009/45 / EC of 6 May 2009 concerning the rules and safety standards for passenger ships, which entered into force on 15 July 2009 (revised version as amended by Commission Directive 2010/36 / EU of 01.06.2010), followed by Directive 2009/45 / EU, in Ukraine is set by the relevant decisions of central authorities (at the date of this document there is no relevant decision).

2.6.1.1.2

The provisions of Directive 2009/45 / EC are applied to passenger ships listed below regardless of their flag, which are engaged in inland sea (coastal) voyages:

- New passenger ships;
- Existing passenger ships of 24 meters or more;
- High-speed passenger ships;

Each State - party of Directive 2009/45/EC, as a state, in accordance with Article 3.1 of Directive 2009/45/EC should ensure full compliance of passenger ships and high speed passenger vessel flying the flag of a State which is not a state - party of Directive 2009/45/EC, with the requirements of this Directive (with the possibility of ignoring the limits established by the Register and the establishment of additional requirements) before the ship will be entitled to make inland voyages in that State - party of Directive 2009/45/EC.

The Directive does not apply to:

- passenger ships which are:
  - military vessels or ships for transport of troops;
  - vessels that move not by mechanical means;
- ships built from materials other than steel or equivalent and not covered by performance standards for high-speed crafts (Resolution MSC 36 (63) or MSC 97 (73)) or vessels with dynamic support (Resolution A.373 (X));
- wooden ships of primitive build;
- original and individual replicas of historical passenger ships designed before 1965, built predominantly with the original materials;
- leisure yachts, except those that have or will have a crew and carrying more than 12 passengers with commercial purposes;
- vessels which are used exclusively in port areas;
- high-speed passenger ships, which are:
- military vessels or ships for transport of troops;
- recreational vessels, except those that have or will have a crew and carrying more than 12 passengers with commercial purposes;
- vessels which are used exclusively in port areas.

2.6.1.1.3

In Rules for classification and construction of sea ships, Regulations for equipment of sea ships, Rules on Load Line of seagoing vessels and Rules for ships cargo equipment, edition 2011, as amended and supplemented by them Bulletin №1, the provisions of Directive 2009 / 45 / EC concerning passenger not high speed vessels are taken into account .

2.6.1.1.4

Requirements concerning safety during the endorsementt of the ship compliance with the provisions of Directive 2009/45 / EC.

2.6.1.1.4.1

For all new and exisiting vessels:

.1 The design and technical equipment of hull, machinery installations, main and auxiliary machinery, electrical equipment and automation must comply with the Rules for classification and construction of ships, as confirmed by the valid Classification certificate;

.2 The provisions of Chapters IV, including the amendments of 1988 on GMDSS, V and VI of SOLAS 1974 Convention, as amended shall be applied;

.3 Navigational equipment on the ship should be subject to the provisions of rules 17, 18, 19, 20 and 21 of Chapter V of SOLAS Convention 1974, in their current version. Ship navigation equipment that indicated in Annex A.1 to Directive 96/98 / EC and complies with its provisions shall be deemed, subject to the type-approval in accordance with Rule 18.1 of Chapter V of SOLAS Convention 1974.

2.6.1.1.4.2

In relation to new passenger ships:

.1 General requirements:

- New passenger ships with the signs A, A-R1, A-R2, A-R2-SN, A-R2-RSN must fully comply with SOLAS Convention 1974 as amended, as well as specific, relevant characters, the requirements of the Rules for classification and construction of sea vessels Rules for sea ships equipment, but also in terms of the requirements for

passenger and freight elevators, Rules for for sea ships cargo equipment. For those regulations, for which SOLAS Convention 1974, as amended, leaves the interpretation to the discretion of the Administration, the Register must apply interpretations as is contained in the specified Rules;

- New passenger ships with signs B-R3-SN, B-R3-RSN, C-R3-SN, S-R3-RSN, D-R3-SN and D-R3-RSN must meet special requirements of the Rules for classification and construction of sea vessels, Rules for sea ships equipment, but also in terms of the requirements for passenger and freight elevators, Rules for for sea ships cargo equipment, specified in accordance with the sign.

.2 Requirements Load:

- New passenger ships of 24 meters or more must meet the requirements of the International Load Line Convention 1966;
- Criteria with a level of safety equivalent specified in the International Load Line Convention 1966 must be applied with regard to length and mark to new passenger ships of less than 24 meters; such vessels must meet the requirements of section 8 "Load lines of vessels of less than 24 meters' of Rules on Sea Ships Load Line. Sign A to such vessels is not provided;
- Nevertheless, new passenger ships with the sign D-R3-SN and D-R3-RSN exempt from the requirements for the minimum allowable height of bow set forth in the International Load Line Convention 1966 and the Rules forSea Ships Load Line;
- New passenger vessels must have a full (upper) deck. The 'ship with a full deck' means a ship that is provided with a complete deck, exposed to weather and sea, which has permanent means of closing all openings in the weatherpart thereof and below which all openings in the sides of the ship are fitted with permanent means of at least weathertight closing; the complete deck may be a watertight deck or equivalent structure consisting of a non-watertight deck completely covered by a weathertight structure of adequate strength to maintain the weathertight integrity and fitted with weathertight closing appliances;

2.6.1.1.4.3

In relation to existing passenger ships:

.1 Existing passenger ships with the signs A, A-R1, A-R2, A-R2-S, A-R2-RS must comply with the Rules for existing passenger ships as defined in the SOLAS Convention 1974 as amended, as well as specific requirements for existing ships of Rules for classification and construction of seagoing vessels and rules on equipment of ships, are specified in accordance with the sign. For those regulations, for which SOLAS Convention 1974, as amended, leaves the interpretation to the discretion of the Administration, interpretation should be applied according to those statedby the Rules;

.2 Existing passenger ships with signs in-R3-S and B-R3-RS must meet specific requirements for existing ships of Rules for classification and construction of seagoing vessels and rules on equipment of ships, specified in them under the sign;

.3 Existing passenger ships with signs C-R3-S, S-R3-RS, D-R3-S and D-R3-RS must meet specific requirements for existing ships of Rules for classification and construction of seagoing vessels and rules on equipment of ships, specified in them according to the sign and, to the extent not covered by specific requirements, the requirements of Rules for classification and construction of sea vessels for ships constructed before 1 July 1998.

Before the existing passenger ships with signs C-R3-S, S-R3-RS, D-R3-S and D-R3-RS

can be used to perform inland voyages in the host State, the Administration of the flag State shall obtain the consent of the host State regarding use of the Register Rules. However, if the Administration of State - party of Directive 2009/45 / EC believes that rules required by the Authority of the receiving State is not appropriate, the decision to accept the application of the rules is taken by the EU Commission upon the request of a Party States;

.4 Repairs, conversion and modification of a major character and applicable in this equipment must meet the requirements in respect of new vessels, as described in 2.6.1.1.4.2.1. Alterations be carried out on the existing ship and intended solely to achieve a higher standard of buoyancy should not be considered as a modification of a major character;

2.6.1.1.4.4

Regarding high-speed passenger ships:

.1 High speed passenger ships constructed or subjected to repairs, re-equipment or modification of a major character on 1 January 1996 and after that date must meet the requirements of Regulation X / 2 and X / 3 of the SOLAS Convention, 1974, except that:

- Their keel was laid or they were at a similar stage of construction not later than June 1998, and
- Delivery and commissioning took place no later than December 1998, and
- They fully meet the requirements of the Code of Safety for Dynamically Supported Craft (DSC Code), contained in IMO Resolution A.373 (X) as amended by IMO Resolution MSC 37 (63);

.2 High speed passenger crafts built before 1 January 1996 and meeting the requirements of the Code of Safety for High-Speed Craft continue operation with certificates under the Code.

High speed passenger ships built before 1 January 1996 and did not meet the requirements of the Code of Safety for High-Speed Craft shall not be applied on inland voyages, unless they previously were in operation on inland voyages in the country - party of Directive 2009/45 / EC of 4 June 1998; in this case, they can continue to be operated on inland voyages in that State; such vessels must meet the requirements of the Code of Safety for Dynamically Supported Craft as amended;

.3 Design and technical equipment of high-speed passenger craft and her equipment must comply with the Rules for classification and construction of high-speed crafts.

2.6.1.1.4.5

Requirements for stability and gradual withdrawal of Ro-Ro passenger vessels.

.1 All passenger Ro-Ro ships with signs A, A-R1, A-R2, A-R2-S, A-R2-RS, B-R3-S, B-R3-RS, C-R3-S and C -R3-RS, whose keel was laid or which were at a similar stage of construction on Oct. 1, 2004 or after this date must comply with Articles 6, 8 and 9 of the Directive of the European Parliament and Council Directive 2003/25 / EC of 1 April 2003 on special stability requirements for ro-ro vessels.

.2 All passenger Ro-Ro ships with signs A, A-R1, A-R2, A-R2-S, A-R2-RS, B-R3-S and B-R3-RS, the keel of which was laid or which were at a similar stage of construction before 1 October 2004 shall comply with articles 6, 8 and 9 of the Directive of the European Parliament and Council Directive 2003/25 / EC by 1 October 2010,

excluding those that were put out of operation on that date or on a later date, on which they reach the age of 30 years but in any case not later than 1 October 2015.

2.6.1.1.5

Safety requirements for persons with reduced mobility.

2.6.1.1.5.1

It should be ensured that appropriate measures have been taken based, where practicable, on below requirements in order to enable persons with reduced mobility to have safe access to all passenger ships and to all high-speed passenger ships, which are used as public transport, whose keel was laid or which were at a similar stage of construction on Oct. 1, 2004 or after.

.1 Access to the ship.

The vessel must be constructed and equipped in such a way that a person with reduced mobility could easily and safely embark and disembark, and was able to move between decks without assistance or using ramps (ramps), elevators (lifting devices) or lifts. Movement signs to such access routes should be at other ways of access to the ship and at other appropriate locations throughout the ship.

.2 Signs (marks).

Signs provided on a ship to aid passengers should be accessible and easily understood by persons with reduced mobility, (including persons with impaired senses), and be positioned at key locations.

.3 Means of communication.

The operator on board must have the means to carry out visual and verbal announcements, such as regarding delays, schedule changes, or services on board, to persons with various forms of reduced mobility.

.4 Alarms.

Alarm system and alarm buttons must be designed to be easily accessible and alert all passengers with reduced mobility, including persons with impaired senses and persons with disabilities memorization;

.5 Additional conditions to ensure the movement of the ship. Handrails, corridors and passageways, doorways and doors shall ensure the passage of persons in a wheelchair. Lifts, car decks passenger cabins, living rooms and bathrooms should be designed to be accessible in a rational and regular manner for persons with reduced mobility.

2.6.1.1.5.2

Applying the requirements specified in 2.6.1.1.5.1, should follow the IMO circular MSC / Circ.735 of 24 June 1996 entitled "Recommendation on the design and operation of passenger ships to the needs of the elderly and disabled."

2.6.1.1.5.3

In the case of modification of passenger ships and high speed passenger ships, which are used as public transport, the keel of which was laid or which were at a similar stage of construction before 1 October 2004, the requirements of 2.6.1.1.5.1 should be applied as appropriate and practically relevant in economic conditions.

2.6.1.2

Definitions.

For provisions concerning Directive 2009/45/EC, in accordance with its provisions, the following terms and their definitions have been adopted:

.1 Administration of the flag State - means the competent authority of the State whose flag the ship is entitled to fly;

.2 'existing ship' means a ship which is not a new ship;

.3 'domestic voyage' means a voyage in sea areas from a port of a Member State of Directive 2009/45 / EC to the same or another port within that Member State of Directive 2009/45 / EC;

.4 Code on intact stability of the vessel - means the International Code on stability of ships in intact condition (IS Code 2008), adopted by IMO Resolution MSC.267 (85) of 4 December 2008, or the "Code on intact stability of all types of ships covered by IMO instruments" adopted by IMO Assembly Resolution A.749 (18) of 4 November 1993, as amended, as the action of these codes;

.5 'High-Speed Craft Code' means the 'International Code for Safety of High-Speed Craft' contained in IMO Maritime Safety Committee Resolution MSC.36(63) of 20 May 1994, in its up-to-date version; or "International Code of Safety of High Speed Craft", 2000 (2000 HSC Code), adopted by IMO Resolution MSC.97 (73) of 5 December 2000, in their current versions, depending on the actions of these codes;

.6 'International Conventions' means the 1974 International Convention for the Safety of Life at Sea (the 1974 SOLAS Convention), as amended, and the 1966 International Convention on Load Lines, together with the Protocols and amendments thereto;

.7 'international voyage' means a voyage by sea from a port of a Member State to a port outside that Member State, or conversely;

.8 'new ship' means a ship the keel of which was laid or which was at a similar stage of construction on or after 1 July 1998; a 'similar stage of construction' means the stage at which:

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

.9 State of residence - means a State - side of Directive 2009/45/EC, to or from the port (ports) of which, a ship which is entitled to fly the flag other than the flag of that State - side of Directive 2009/45 / EC, provides domestic voyages.

2.6.1.3

Equivalents and exceptions.

2.6.1.3.1

If a State - side of Directive 2009/45 / EC or group of States - parties to Directive 2009/45 / EC believe that the safety requirements applicable should be improved in certain situations due to specific local circumstances and if the need for this to be demonstrated they may, in accordance with the procedure of Article 9.4 of Directive 2009/45 / EC, adopt measures to improve the safety requirements.

2.6.1.3.2

State - side of Directive 2009/45 / EC may, in accordance with the procedure of Article 9.4 of Directive 2009/45 / EC, adopt measures allowing the equivalent position with the requirements of the rules laid down in Directive 2009/45 / EC and the relevant rules of the Register, provided that such equivalent provisions are at least as effective as those requirements.

2.6.1.3.3

In the absence of safety level reduction and in accordance with the procedure of Article 9.4 of Directive 2009/45 / EC, state - party of Directive 2009/45 / EC may adopt measures to release ships from certain specific requirements of Directive 2009/45 / EC and for ships entitled to fly the flag of Ukraine, the relevant rules of the Register for domestic voyages in Ukraine, including its maritime zones, closed from the effects of the high seas under certain operating conditions, such as smaller height significant wave restriction period, carry out of voyages during daylight day or favorable climatic or weather conditions, or limitations on the duration of the voyage, or in the immediate vicinity of the rescue services.

2.6.1.3.4

The Register takes note of those listed above and is guided by the decisions of Member States - parties to Directive 2009/45/EC.

2.6.1.4

Surveys for conformity assessment.

2.6.1.4.1

To confirm compliance of new and existing passenger ships see. 2.6.1.1.4.1-2.6.1.1.4.3, with the provisions of Directive 2009/45 / EC with issue of specified in 1.4.2 documents and their endorsement surveys are carried out in accordance with Article 12 of Directive 2009/45 / EC in accordance with the established rules of the flag State of the vessel (in Ukraine in accordance with section 12 of Part IV of the Register's Rules on survey of ships (provisions concerning Directive 2009/45 / EC to be developed) approved by the Register technical documentation and normative documents of the Register, which take into account the requirements of the said Directive.

2.6.1.4.2

For endorsement of high-speed passenger ship compliance, see. 2.6.1.1.4.4, with the provisions of Directive 2009/45 / EC with issue of specified in 1.4.2 documents and their confirmation which is due to Directive 2009/45 / EC should comply with the high-speed crafts Code and for crafts that must meet the requirements of the Code of safety for dymamically supported craft, surveys are carried out under Article 12 of Directive 2009/45 / EC in accordance with the established ship's Flag State rules (in Ukraine according to 10.6 of Part IV Register's Rules on survey of ships (provisions to Directive 2009/45 / EC will be developed) approved by the Register technical documentation and normative documents of the Register, which take into account the requirements of the said Directive.

RULES FOR CLASSIFICATION AND CONSTRUCTION OF VESSELS

PART I. CLASSIFICATION

1 GENERAL PROVISIONS

1.1 RULES

1.1.1

The basis for classification and construction of vessels and other floating structures and technical devices that belong to them are:

- Rules for classification and survey of vessels of the Shipping Register of Ukraine, further the Register, applied in each case edition and
- Rules of construction relating to that ship, taking into account the type or the appropriate device in the edition in force at the time of approval of the ship's project by the Register or signing a contract for its construction according to 1.3.2.2 General provisions on technical supervision activities.

Rules for construction include rules for materials and welding, as well as other editions of the Register and in this case apply special rules listed in 1.3.1 General provisions on technical supervision activities.

1.1.2

This part of the Rules for classification and construction of vessels is common to:

- Rules for classification and construction of sea-going ships;
- Rules for classification and construction of combined navigation vessels;
- Rules for classification and construction of inland navigation vessels;
- Rules for classification and construction of small craft, which are part of the Rules for classification and construction of vessels.

1.1.3 In Rules for classification and construction of vessels under classification should understand the development, publication and application of the Rules, the permanent implementation of which, with proper maintainance of the vessel by the ship owner or operator will provide:

- structural strength and integrity of the hull and its parts, including structural fire protection,
- seaworthiness of the vessel (her stability) in all cases provided for under certain workload wind-wave conditions, safe and reliable operation of its propulsive installation systems and ship control devices, other systems, auxiliary machinery and equipment, including fire-fighting, and thus will safely operate the vessel in accordance with her purpose.

1.1.4

Rules of the Register are not applied to ships and craft that is not subject to classification and technical supervision of the Register, namely military vessels, Derzhrybahenstva (self-propelled - with main engine capacity of less than 55 kW, not self-propelled - with gross tonnage of less than 80 register tons) sports crafts as well as vessels and boats under 1.2.9 General provisions on technical supervision activities and 1.3.4.2 of this Regulation.

1.1.5

National rules such as the State Flag, remain intact relatively to Rules of classification. Various established in international agreements, requirements captured in the Rules. In case of differences between the requirements of the Rules and international agreements priority for vessls that have to comply with international agreements is provided to these agreements if these requirements do not lower the safety level stipulated by the Rules.

1.2 DEFINITIONS AND EXPLANATIONS

1.2.1

Definitions

In order to use the Register Rules for classification and construction of vessels, the following definition and explanation (unless otherwise specifically applied in specific regulations and their parts) are used:

Barge - not self-propelled cargo vessel suitable for towing or pushing her.

Barge carrier (lighter) - cargo ship carrying cargo in ship barges (lighters).

Tug - vessel designed for towing and canting other vessels and floating structures.

Empty displacement - displacement of a ship without cargo, fuel, lubricating oil, ballast, fresh, boiler water in tanks, provisions, supplies and without passengers, crew and their belongings.

Cargo vessel - any vessel that is not a passenger (dry cargo, liquid bulk, refrigerated transport, icebreaker tug, pusher, rescue, fleet maintenance, cable, industrial transportation, and other special purpose ship not passenger).

Cargo - passenger ship - cargo ship, which is additionally equipped for transportation or carrying more than 12 passengers, including persons accompanying the present load. Cargo passenger ship shall meet the applicable integrated requirements for cargo and passenger vessels.

Dump-scow - self-propelled or not self-propelled ship designed for transporting soil.

Deadweight - the difference between the displacement of a cargo ship on the waterline corresponding to the designated summer freeboard in water with a specific gravity of 1.025 t / m3 and empty displacement. Ships intended solely for navigation in areas with fresh water, displacement of the ship by cargo waterline accepted for waterline corresponding to designated freeboard for the area of navigation, stated in the class of the vessel, in water with a specific gravity of 1.0 t / m3.

Dredging vessel - self-propelled or not self-propelled vessel designed to excavate and transport soil.

The crew - all available on board individuals who provide navigation and maintenance of the vessel, her machinery, systems and appliances necessary for propulsion and safe navigation of the ship, or serving persons on board.

The crew of a fishing vessel - persons engaged in performance of any duties on board related to her purpose.

Dredger - self-propelled or not self-propelled vessel designed to excavate the soil with special devices (scoops, suction devices, grabs and so on), which has no holds for loading of soil and its transportation.

Combined ship - a ship designed for the bulk transport of crude oil and petroleum products and bulk cargo (oil-ore carriers, oil-bulk carriers, etc.).

Container carrier - a ship that is designed to transport cargo in containers of international standard and is directing cellular structures in the holds.

Crane vessel - the same as the floating crane, but on the basis of a floating ship or ship close to contours.

Icebreaker - self-propelled vessel designed for different types of icebreaking operations to maintain navigation in areas that freeze (or rather see. 2.2.3.1.1).

Timber carrier - cargo ship designed to carry deck cargo forestry.

Small ship - a vessel classified under the Rules for classification and construction of small vessels;

Place of shelter - any naturally or artificially protected water area that can be used to cover the ship in the event of circumstances that threaten her safety.

Sea vessel - a vessel which by her technical characteristics suitable and duly admitted to operation with a view of sea navigation on waterways and classified in accordance with the Rules for classification and construction of sea vessels;

Bulk carrier - a ship which is intended primarily for the transportation of dry bulk cargoes, including such types of vessels as ore carriers and combined vessels.

For the identical application of the term "bulk carrier" should be guided by the provisions of the IMO resolution MSC.277 (85). The term "bulk carrier" is interpreted with the understanding under this definition as follows:

- primarily to carry dry cargo in bulk. means primarily designed to carry dry cargoes in bulk and to transport cargoes which are carried, and loaded or discharged, in bulk, and which occupy the ship.s cargo spaces exclusively or predominantly; and MSC 85/26/Add.1 ANNEX 13 Page 2
- includes such types as ore carriers and combination carriers and constructed generally with single deck, top-side tanks and hopper side tanks in cargo spaces. means that ships are not considered outside the definition of bulk carriers on the grounds that they are not ore or combination carriers or that they lack some or all of the specified constructional features;

For ships built before 1 July 2006, the following interpretation of the definition of "bulk vessel ' has been adopted :

- A ship which design includes one deck, side tanks and side bilge tanks in cargo spaces and which is intended mainly for transportation of bulk cargoes; or
- Ore carrier; or
- Combined ship.

For this "ore carrier" means sea single-deck ship having two longitudinal bulkheads and double bottom area along the length of the cargo spaces for the carriage of ore only in the central compartment; "Combined ship" means a tanker designed to carry oil or dry bulk cargoes in bulk.

Ro-ro ship - a ship specially designed to transport various wheeled vehicles (automobiles, railway rolling stock, tracked vehicles, trailers with cargo and without cargo), which cargo operations are conducted mainly in horizontal way - by rolling. Float on ship - cargo ship designed for handling using the method of docking in ports and sheltered waters.

Tanker - a ship designed for the carriage of liquid cargo in bulk, including:

Tanker (specialized) vessel - a ship designed to transport bulk liquid cargo other than oil and petroleum products. The specific purpose of specialized tanker is specified in verbal characterization of the class sign according to 2.2.28;

oil tanker - a ship designed for the carriage of bulk crude oil and petroleum products with a flashpoint of 60 ° C and below and with Reid vapor pressure below atmospheric pressure;

oil tanker (> 60 ° C) - a ship designed for the carriage of oil in bulk with a flashpoint over 60 ° C;

oil collector ship - a ship designed for cleaning of the surface of the sea of crude oil and petroleum products with a flashpoint of 60 ° C and below;

oil collector ship (□60 ° C) - a ship designed for collecting of crude oil and petroleum products with a flashpoint over 60 ° C from the surface of the sea ;

collector of oily water - vessel designed for collecting oily water from machinery spaces of ships.

Passenger - any person on board, in addition to the captain and crew members or other persons who work or have any employment associated with the activities of the vessel (special staff) and children less than one year.

Passenger ship - a ship designed to transport or carrying more than 12 passengers.

Ro-ro passenger vessel (passenger Ro-Ro ship)- passenger ship which carries more than 12 passengers and has a closed or open cargo spaces with horizontal way of loading and unloading facilities or special category spaces as defined in 1.5 and 1.5.4.3-1.5.4.4 .9 Part VI «Fire protection" Rules for classification and construction of sea vessels.

Ro-ro passenger ships also include ferries that is ships engaged carriage on regular ferry of passengers and freight on the open and / or closed deck wheeled vehicles with fuel in the tanks and / or rail rolling stock with horizontal method of loading and unloading.

The passenger stationary vessel - stationary ship used as a floating hotel or hostel, floating restaurant (bar, café, casino, disco, games room), berthing pontoon, floating jetty, a boat for training of specialists and crew of ships or other purposes with the provided accommodation of more than 12 passengers on vessel.

Floating craft - either self-propelled or non-self-propelled floating object, including stationary, that is used to carry cargo, baggage and mail, passengers, fish or other marine or river craft, rescue people, towing other floating objects, hydraulic engineering, scientific, educational, sports, entertainment purposes, and is operated on water.

Floating crane (floating cranes) - crane construction on a floating pontoon or on close to it in the form type, designed to perform lifting and technological (installation, underwater, hydraulic, rescue, laying pipelines, etc.) operations which may be also used for transporting cargo on deck and / or in the hold.

Floating lighthouse - not self-propelled ship which has special equipment (lighting devices, tools misty alarm, radar beacons and other), intended for enclosure of navigational hazards and guidance for larger ships to ensure maritime safety.

Recreational vessel - a ship, used on a non-commercial basis solely for recreation and has on board not more than 12 people.

Fishing vessel - a ship designed and specially equipped for fishing (fishing), catch and transport the catch (industrial - transport), catching and processing fishing resources(fish or other living aquatic resources).

Crew boat - self-propelled vessel designed and equipped for transportation and travelling of officials or ship's crew in quantity not exceeding 12 people, excluding crew.

Ore carriers - vessel designed mainly for transportation of ore, which includes the design of longitudinal bulkheads that separate central compartments equipped with double bottom for ore from the side compartments.

Rescue vessels -self-propelled vessel designed to assist vessels in distress at sea.

Special staff - all persons who are not passengers or crew members or children not older than one year and who are on board in connection with the special purpose of the ship or in connection with special work on board this ship, that is perform special responsibilities related to specific operational purpose of the vessel, which are prescribed and over the number of staff required to perform regular duties relating to navigation, operation and maintenance of vessel mechanisms or employed in services of people on board. The number of special personnel includes the number of passengers not more than 12 who are on board. In the presence on board of more than 12 passengers, the ship is considered as a passenger vessel.

Special staff includes the following categories:

- Researchers, technicians and forwarding on vessels engaged in research activities, non-commercial expeditions and scientific research;
- Staff, which is trained and gaining practical experience at sea for the development of appropriate skills for the purpose of professional careers at sea. Such training should take place in accordance with the training program approved by the Administration;
- Staff engaged in processing catching fish, whales and other marine living resources on processing ships not engaged in catching;

- Rescue personnel on rescue vessels, staff, engaged in laying the cable on cable ships, personnel engaged in seismic studies divers on diving vessels, staff engaged in laying pipes on pipe layers and personnel engaged in the operation of the crane, on floating cranes; and
- Staff, similar to the above which, in accordance with national law by a decision of the Administration is referred to as specialized personnel.

If the vessel is used for special purposes, such as providing diving operations or conducting oceanographic research, the persons on board in connection with these special purposes should be treated as special personnel.

Stationary vessel - not self-propelled floating structures with the hull of pontoon type or bottomed ship operated in stationary mode at anchor or mooring at the quay wall (bank). These vessels include floating docks, floating hostels, floating workshops, floating power plants, floating stocks, floating storage of oil, landings, fire watch, vessels for training specialists and crew of ships, vessels for collection and processing of water containing oil products , sewage, garbage, floating restaurants (bars, cafes, casinos, discos, game rooms), mooring pontoons, etc.

The vessel - self-propelled or not self-propelled floating structure that is used for navigation in sea areas and / or inland waterways that meet her class.

Ship barge (lighter) - not self-propelled cargo ship operated without crew and adapted for transportation on specially equipped vessels (barge, lighter carrier) and towing (pushing) within the established navigation area.

Inland navigation vessel - a vessel which by her characteristics fit and duly admitted in established order for operation at Inland Waterways and classified in accordance with the Rules for classification and construction of inland navigation vessels;

Support vessels - vessel designed mainly to deliver supplies, materials and equipment to offshore installations in the sea (floating and fixed installations of various purposes) and which is constructed in a way that there is usually residential superstructure and the bridge in the bow of the vessel and open cargo deck for cargo operations at sea in the stern of the vessel. In compliance with the relevant requirements of the Register Regulations the ship can be used for towing operations.

The vessel of mixed (sea - river) navigation - a vessel which by its characteristics is fit and duly admitted for operation in established orded for navigation mainly on maritime waterways and the possibility of navigation on inland waterways and is classified in accordance with the Rules for classification and construction of sea vessels .

The vessel of mixed (river-sea) navigation (ship of mixed navigation) - vessel classified under the Rules for classification and construction of vessels of mixed navigation which by her characteristics is fit and duly admitted in established orded for operation on Inland Waterway with access to coastal marine areas.

Special purpose vessel - self-propelled vessel with mechanical engine, on board which in connection with her appointment there are more than 12 people of a specialized personnel, ie persons performing special duties related to a particular purpose of the ship that are anticipated over the number of staff required to perform regular duties relating to navigation, operation and maintenance of ship's mechanisms, servicing of persons on board (for these vessels research, forwarding, hydrographic, training vessel, whale factories, fish factories and other vessels used for the processing of marine living resources and not employed in their catches, etc. are understood).

Technical fleet vessel - self-propelled or not self-propelled vessel designed to perform support work, providing shipping or mining of sand, soil, stones and others. (dredgers, send loader, cranes, workshops, etc.).

Dry cargo vessel - a ship designed to transport various cargoes (general, containers, timber, bulk cargo, etc), except for liquid cargo in bulk.

Reid vapor pressure - liquid vapor pressure,set by a special technique of the Reid instrument at 37,8^{o}C and volume ratio of gas and liquid 4: 1.

Cargo vessel - self-propelled or not self-propelled vessel designed to transport goods and passengers.

Transportation pontoon - not self-propelled vessel without a crew for the carriage of deck cargo having no hatchways in the deck except small openings for access inside that are closed by covers with sealing gaskets.

Hold dredger - self-propelled or not self-propelled vessel designed to remove the soil with special devices (scoops, suction devices grabs and so), which has holds for accommodation and transportation of soil.

Definitions concerning specific types of ships (nuclear vessels and floating structures, atomic technological service vessels, high-speed crafts, dynamically supported vessels , WIG craft, gas carriers, chemical carriers, drilling ships, floating rigs and stationary offshore platforms, habitable underwater vessels and ship diving facilities) are provided in the relevant Rules for classification and construction of these types of vessels.

The list of such Regulations is given in 1.3.1 of General provisions on technical supervision.

1.2.2

Explanations

The following explanations are adopted in the Rules:

Date of "contract for construction" of the vessel (series of vessels).

.1 Date of "contract for construction" of the vessel is the date of signing the contract for the construction of the vessel by a future shipowner and shipbuilder. This date and the construction numbers (ie, numbers of orders) all vessels included in the contract shall be notified to the Register by the party applying for designation of class for vessel under construction.

.2 Date of "contract for construction" of series of vessels, including reserved option vessels, an option for which, is executed ultimately is the date on which the contract for construction of the series was signed by the future shipowner and shipbuilder.

Ships built on one contract for construction are considered "serial vessels" if they are built on one project approved for the purpose of classification. However, serial vessels can have structural changes compared to the original project, provided that:

.2.1 These changes have no effect on issues relating to the classification, or

.2.2 If the amendments relate to the classification requirements they must meet the requirements of classification in force on the date on which the changes were agreed with contract signed by the future shipowner and shipbuilder or, in the absence of an agreed contract on changes, they must meet the classification requirements acting on the date on which those changes were submitted to the Register for approval.

Option ships should be considered as part of one and the same series of vessels if the option is confirmed not later than one year after signing the contract for the construction of a series.

.3 If a contract for construction was later amended to include additional vessels or additional options, the date of "contract for construction" of such vessels is the date on which the amendment to the contract concluded by the future shipowner and shipbuilder has been signed. This change to the contract should be considered as a "new contract" to which the above explanation is applied.

.4 If a contract for construction is amended, changing the type of vessel, the date of "contract for construction" of the vessel or vessels shall be the date of signing a revised or new contract by shipowner or shipowners and ship builder.

Note. Under option ships are understood vessels included in the contracts on condition of additional confirmation of their construction (order) by future shipowner.

This explanation came into force on 1 July 2009.

Additional requirements - requirements stipulated by the rules, caused by the object characteristics or conditions of operation, imposed by the Register in writing to ensure the safety of technical supervision.

Measuring distances - if in the text of SOLAS Convention, Load Line Convention, MARPOL Convention, and applicable to these codes, as well as the Rules and guidelines of the Register not specified otherwise, the distance (the length of the tank, height, width, length of the vessel division into sections, the length of the ship waterline etc.) must be measured using the theoretical size.

Owner - the person or entity that owns the vessel on property rights, regardless of whether it operates her itself or transferred in trust or other type of control to another person within the law.

Elements of the metal hull design - except as described in the Rules of structural elements of ship's metal hull definitions, their definitions are adopted in accordance with ISO 2337- for Ukrainian vessels and according to harmonized standards.

Occasional navigation - irregular operation of vessels in the area (area of navigation) of a higher level or in ice conditions that is allowed by the Register, subject to additional requirements for the design, freeboard, equipment, supply and limitations of navigation area, wind-wave mode, seasonality, ice conditions, etc.

Register Class (Class) - endorsed by the classification certificate of the Register compliance of the ship with the requirements set out its rules of classification with regard to conditions for safe navigation and purpose of the vessel. Class is assigned to ships and other floating structures and stationary offshore platforms, and is indicated in the classification certificate by conventional set of symbols and verbal features that characterize their design features, purpose and operating conditions defined by the rules.

Operator - a physical or legal person managing the vessel under contract with the owner or the shipowner.

Rules (Rules of the Register) - a set of regulatory and technical requirements to objects of technical supervision. The list of rules is shown in the Register 1.3.1 General Provisions on technical supervision activities.

Main dimensions of the vessel - except as described in the Rules of ships main dimensions identifications, their definition is adopted in accordance with ISO 2355- for Ukrainian vessels and according to harmonized standards.

Special consideration - determination of the object of technical supervision level of compliance with additional requirements.

Standards - a term that concerning the Rules means various kinds of standards and other regulatory technical documents of any countries agreed or recognized by the Register.

Shipowner - physical or legal person who operates the vessel on its own behalf, whether he is owner or operates her on other legal grounds.

The vessel in construction - a vessel which is being built, since laying the keel till obtaining documents issued to the ship.

Keel lay date is a stage:

of the beginning of construction, which can be defined as one that applies to a given vessel;

weight of the composite hull is at least 50 tonnes or 1% of the estimated mass of all hull materials, depending on which of these values is less.

Keel laying date of fiber-reinforced plastic vessel is the date of laying on / into the matrix of the first reinforced structural layer from the overall system of approved laminated plastic.

The vessel in operation - a vessel that is not in the vessel in construction.

1.2.3

Hydrometeorology for ships

1.2.3.1

General provisions.

1.2.3.1.1

Characteristics of wind are adopted according to the Beaufort scale adopted by the World Meteorological Organization (WMO).

1.2.3.1.2

The relationship between wind and wawing with reference to the distance from the shoreline is adopted for ocean and marine areas based on the basic characteristics of fully developed waving over the spectrum of Pearson - Moskovyts listed in the table. 1.2.3.1.

1.2.3.2 Terminology.

Wind - moving air horizontally.

Wind direction - is determined on sides of the world of rumba under Rule: the wind blows in compass. Wind direction which changes frequently is called unstable. In terms of river wind that blows down, is called upper wind, from the bottom up - lower wind. The name of the wind is correct only for a particular area of the river.

Wind speed is expressed by the number of meters, passed by air mass in one second.

Squall - sudden appearance and strong wind, or abrupt temporary change of its direction, or a sharp increase in its speed.

Waves on a water surface by origin (forces that cause waving) are divided into the following types:

Anomobaric arising from the recession and the surge of water, as well as sharp changes in atmospheric pressure;

Ripples - waving that continues after the wind has died down, weakened, or that changed the direction and distributed by inertia in the form of free waves;

Wind waves, generated by the wind. Wind waves are asymmetrical, their windward slope is sloping, leeward - steep;

Mouth - that arise at the mouth of the rivers at their confluence in the sea, lakes and rivers in shallow areas (bar);

Dead wave - waving that spreads by inertia in complete calm;

Tidal wave arising under the forces of attraction of the Moon and the Sun;

Seiche - free gravitational standing waves in closed or semi closed basins;

Ship waves formed during the movement of the vessel;

Chopping - chaotic accumulation of waves formed during direct meetings with the reflected waves;

The tsunami (seismic), resulting from earthquakes, volcanic eruptions and other dynamic processes in the Earth's crust.

The waves are characterized by the following parameters:

Wavelength, (λ) - the horizontal distance between adjacent crests of waves or soles, m;

Wave height, (h) - the vertical distance from the trough to the crest of the wave, m;

Wave steepness, (α) - the angle of slope of the waves. Steepness of waves also characterizes the ratio of height h to its wave length λ, depending on the depth of water area and usually is less than 1/15 of the seas and oceans and less than 1/10 on reservoirs and lakes, the maximum value of 1.8;

Wave period, (τ) - period of time during which two adjacent crests of waves consistently pass through the same point s;

Wave speed (WS) - distance which crest or trough pass per time unit in the direction of its movement;

Wave front - line, perpendicular to the direction of the wave.1.2.3.3

Evaluation of waving.

The degree of waving is measured at the 9-point scale waving developed by WMO, which is shown in the Table. 1.2.3.3. A typical relationship between wind and waving is shown in Table. 1.2.3.1 and Fig. 1.2.3.3.

1.2.3.4 Evaluation of wind power and wind load.

Wind speed is measured by a 12-point wind scale at a height of 10,0m above the water surface according to the Beaufort scale of wind speed estimation given in Table. 1.2.3.4.

Estimated wind pressure is defined as the amount of static (middle) and dynamic (pulsating) components.

Estimated wind pressure is determined in relation to the height of the center of the vessel sails considering the height of wind waves defined by rules for ship navigation area that meets prescribed class of the Register as required in Parts IV «Stability ...." Rules of SV, VCN, IVN.

1.2.3.4.1 Determining the static pressure component of the wind.

The static component of wind load, PA is determined by the formula:

$$W_{CT} = 0,732k\upsilon_0^2 \qquad (1.2.3.4.1)$$

where:

υ_0 - wind speed at 10 meters above the water surface, taken as the average wind speed range specified in Table 1.2.3.4;

k - factor that takes into account the change of wind pressure height, and is assumed to be:

0.75 for heights 5.0 m and less;

1.0 for heights of 10, 0 and more.

Intermediate values are determined by linear interpolation.

1.2.3.4.2 Determination of dynamic component of wind pressure

Dynamic component of wind pressure, $W_{ДМ}$, Pa, is determined according to the formula:

$$W_{ДМ} = W_{CT}\zeta\eta \qquad (1.2.3.4.2)$$

where:

ζ - wind pressure pulsation rate, assumed to be:

0,85 - for heights 5,0 m and less;

0,76 - for height 10,0 m ;

0,69 - for height 20,0 m.

Intermediate values are determined by linear interpolation.

η- the correlation rate of wind pressure pulsations adopted according to table 1.2.3.4.2.

Table 1.2.3.4.2. The correlation rate of wind pressure pulsation

The length of the hull on the water line, m	**The height of the center of ship sails above the waterline, m**		
	2,5	**5,0**	**10**
0,1	0,95	0,92	0,88
5,0	0,89	0,87	0,84
10	0,85	0,84	0,81
20	0,80	0,78	0,76
40	0,72	0,72	0,70
Note: Intermediate values are determined by linear interpolation			

Table 1.2.3.1 Main characteristics of fully developed waving (by Pearson - Moskovyts).

The force of the wind on the Beaufort scale at a height of 6,0m				Sea rough per 9-point WMO scale	Wave height		Wave period, s	Wave length, m	Wave acceleration length, miles	Wave acceleration time, hours
Point and name of wind	Wind speed, m / s				$h_{1/3}$	$h_{3\%}$				
	Range		Measu-rements							
1 Calm	0,6 - 1,7		1,0	0	<0,05	<0,10	0,3-1,9	0,3	5	0,3
2 Light air	1,8 - 3,3		2,6	1	0,15	0,20	0,4-2,8	2,0	8	0,6
3 Light breeze	3,4 - 5,2		4,4 5,1	2	0,40 0,55	0,52 0,72	0,8-5,0 1,0-6,0	6,1 8,2	9,8 10	1,7 2,4
4 Gentle breeze	5,3 - 7,4		6,2 7,0	3 3	0,79 1,0	1,0 1,3	1,0-7,0 1,4-7,6	12 16	18 24	3,8 4,8
5 Moderate breeze	7,5 - 9,8		8,2 9,3 9,8	4 4 - 5 4 - 5	1,4 1,8 2,0	1,9 2,4 2,6	2,0-8,8 2,5-10,0 2,8-10,6	22 27 30	40 55 65	6,6 8,3 9,2
6 Strong breeze	9,9 – 12,4		10,3 11,3	5 5	2,2 2,7	2,9 3,5	3,0-11,1 3,4-12,2	35 40	75 100	10 12
7 Near (hard) gale	12,5 – 15,2		12,6 13,4 14,4	5 - 6 6 6	3,3 3,7 4,4	4,4 4,9 5,7	3,8-13,6 4,0-14,5 4,5-15,5	50 55 65	140 180 230	15 17 20
8 Gale	15,3 – 18,2		15,7 16,4 17,5	6 - 7 6 - 7 7	5,1 5,7 6,4	6,8 7,5 8,5	4,8-17,0 5,0-17,5 5,5-18,5	80 85 100	290 340 420	24 27 30
9 Strong gale	18,3 – 21,5		19,0 20,6	7 - 8 8	7,6 8,9	10,0 11,7	6,0-20,5 6,5-21,7	115 135	530 710	37 42

Table 1.2.3.3. Sea state scale.

(Grade)	(Wave height), м	Description	Signs to determine the state of the water surface
0	0	calm-glassy	Sea like a mirror.
1	0-0,1	calm- ripped	Ripples with the appearance of scales are formed, but without foam crests.
2	0,1—0,5	smooth-wavelet	Small wavelets, still short but more pronounced. Crests have a glassy appearance and do not break.
3	0,5—1,25	slight	Large wavelets. Crests begin to break. Foam of glassy appearance. Perhaps scattered white horses.
4	1,25 —2,0	moderate	Small waves, becoming longer, fairly frequent white horses.
	2,0-2,50		Moderate waves, taking a more pronounced form, many white horses are formed. Chance of some spray.
5	2,50—4,0	rough	Large waves begin to form, the white foam crests are more extensive everywhere. Probably some spray.
6	4—6	very rough	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind.
7	6—7,5	high	Moderately high waves of greater length; edges of crests begin to break into spindrift. The foam is blown in well marked streaks along the direction of the wind.
	7,5-9		High waves. Dense streaks of foam along the direction of the wind. Crests of waves begin to topple, tumble and roll over. Spray may affect visibility.
8	9—12,5	very high	Very high waves with long over hanging crests. The resulting foam in great patches is blown in dense white streaks along the direction of the wind. On the whole, the surface of the sea takes on a white appearance. The "tumbling" of the sea becomes heavy and shock-like. Visibility affected.
	12,5-14		Exceptionally high waves (small and medium sized ships might be lost for a time behind the waves). The sea is completely covered with long white patches of foam lying along the direction of the wind. Everywhere, the edges of the waves are blown into froth. Visibility affected.
9	>14	phenomenal	The air is filled with foam and spray. The sea completely white with driving spray, visibility very seriously affected.

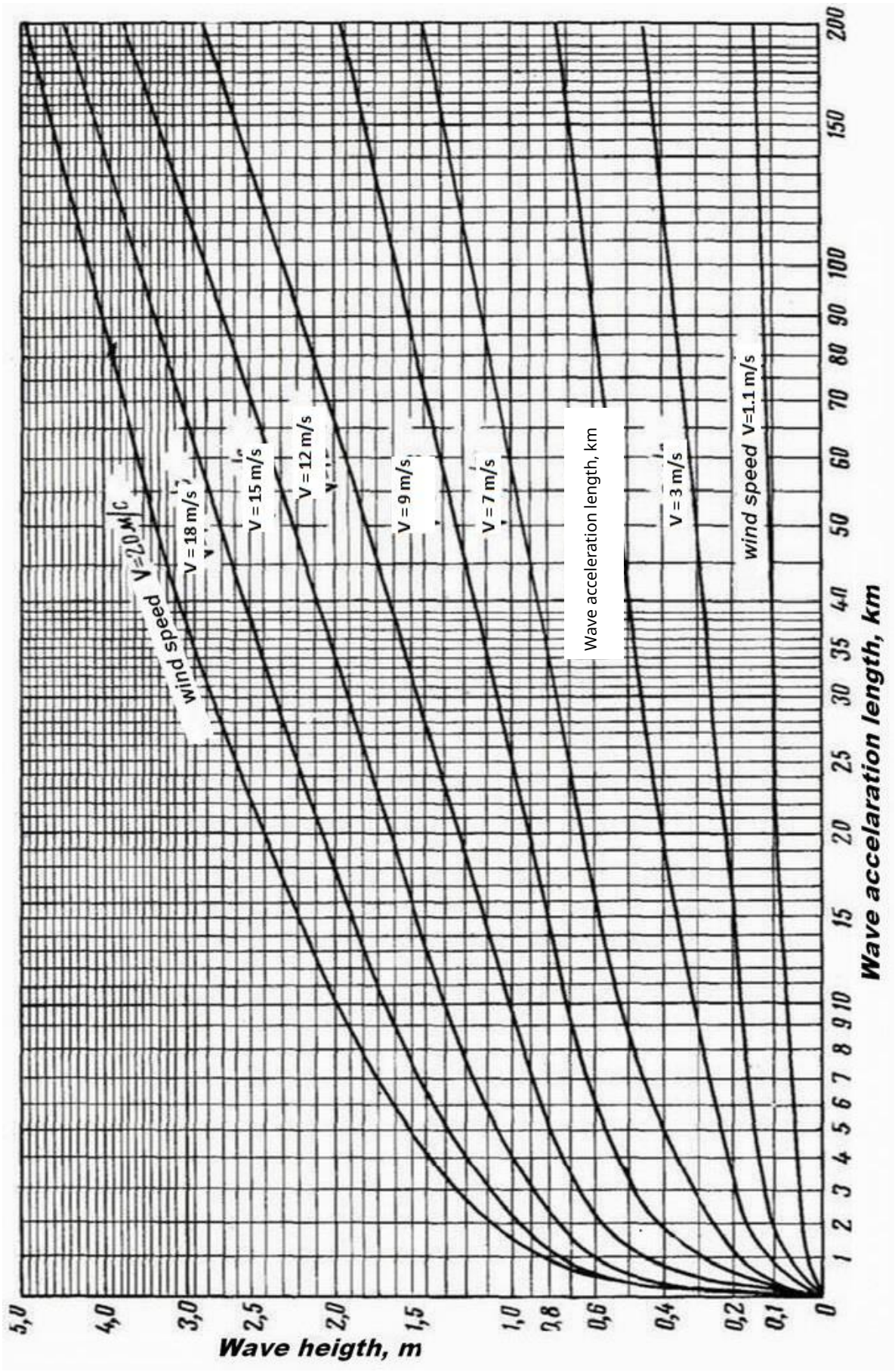


Fig. 1.2.3.3 Main characteristics of wind waves 1 percent provided in shallow water areas of inland waterways

Table 1.2.3.4. Assessment of wind speed upon Beaufort 12-point scale at 10 m height

Points on Beaufort Scale	Verbal definition of wind	Wind speed (average) m / s	The impact of wind on the sea	The action of wind on land
0	Calm	0 - 0,2/ (0)	Sea like a mirror.	Calm. Smoke rises vertically.
1	Light air	0,3 - 1,5/ (1,0)	Ripples without crests.	Smoke drift indicates wind direction. Leaves and wind vanes are stationary
2	Light breeze	1,6 - 3,3/ (3,0)	Small wavelets. Crests of glassy appearance, not breaking	Wind felt on exposed skin. Leaves rustle. Wind vanes begin to move.
3	Gentle breeze	3,4 - 5,4/ (5,0)	Large wavelets. Crests begin to break; scattered whitecaps	Leaves and small twigs constantly moving, light flags extended.
4	Moderate breeze	5,5 - 7,9/ (7,0)	Small waves with breaking crests. Fairly frequent whitecaps.	Dust and loose paper raised. Small branches begin to move.
5	Fresh breeze	8,0 - 10,0/ (9,0)	Moderate waves of some length. Many whitecaps. Small amounts of spray.	Branches of a moderate size move. Small trees in leaf begin to sway.
6	Strong breeze	10,1-13,8/ (12,0)	Long waves begin to form. White foam crests are very frequent. Some airborne spray is present.	Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult. Empty plastic bins tip over.
7	High wind, moderate gale, near gale	13,9-17,1/ (15,0)	Sea heaps up. Some foam from breaking waves is blown into streaks along wind direction. Moderate amounts of airborne spray.	Whole trees in motion. Effort needed to walk against the wind.
8	Gale, fresh gale	17,2–20,7/ (19,0)	Moderately high waves with breaking crests forming spindrift. Well-marked streaks of foam are blown along wind direction. Considerable airborne spray.	Some twigs broken from trees. Cars veer on road. Progress on foot is seriously impeded.
9	Strong/severe gale	20,8–24,4/ (23,0)	High waves whose crests sometimes roll over. Dense foam is blown along wind direction. Large amounts of airborne spray may begin to reduce visibility.	Some branches break off trees, and some small trees blow over. Construction/temporary signs and barricades blow over.

Points on Beaufort Scale	Verbal definition of wind	Wind speed (average) m / s	The impact of wind on the sea	The action of wind on land
10	whole gale	24,5-28,5/ (27,0)	Very high waves with overhanging crests. Large patches of foam from wave crests give the sea a white appearance. Considerable tumbling of waves with heavy impact. Large amounts of airborne spray reduce visibility.	Trees are broken off or uprooted, structural damage likely.
11	Violent storm	28,6–32,0/ (31,0)	Exceptionally high waves. Very large patches of foam, driven before the wind, cover much of the sea surface. Very large amounts of airborne spray severely reduce visibility.	Widespread vegetation and structural damage likely.
12	Hurricane	Over 32,0	Huge waves. Sea is completely white with foam and spray. Air is filled with driving spray, greatly reducing visibility.	Severe widespread damage to vegetation and structures. Debris and unsecured objects are hurled about.

1.3 AREA OF DISTRIBUTION

1.3.1

Rules for classification and constructiobn of sea vessels.

1.3.1.1

Rules for classification and construction of sea ships, further in this part of the Rules of SV are applied to listed below sea and sea-river mixed navigation vessels:

.1 Passenger vessels and tankers, vessels for carriage of dangerous goods, as well as tugs, regardless of length, power of main engines and gross tonnage;

.2 Propelled vessels not listed in 1.3.1.1.1, with the largest hull length of 24 meters or more and main engines power 55 kW or more;

.3 Vessels not listed in 1.3.1.1.1 and 1.3.1.1.2, with the largest hull length of 24 meters or more gross tonnage of 80 or more, or are equipped with machinery and equipment with total power of the primary engines of 100 kW or more;

.4 Materials and articles intended for installation on vessels specified above, the manufacture of which must be carried out under the supervision of the Register (lists of materials and products are given in the relevant parts of the Rules of SV).

Note. Marine pushers, icebreakers, stationary vessels with over 12 passengers on board, floating cranes and ships of industrial fleet (floating workshops, dredgers, etc.), not depending on specified in 1.3.1.1.2 and 1.3.1.1.3 maximum length and vessels with the largest hull length of 24 meters or more, regardless of the

specified in 1.3.1.1.2 and 1.3.1.1.3 power and gross tonnage, are subject to classification and technical supervision in accordance with the Rules for classification and construction of sea vessels.

1.3.1.2

Requirements of Rules SV are also applied to the following types of vessels in the degree in which it is stipulated in the relevant rules for classification and construction of vessels:

.1 Gas carriers (see. Rules for classification and construction of vessels for the transportation of liquefied gases in bulk and Rules for classification and construction of vessels for the transportation of compressed natural gas) (being developed);

.2 Chemical carriers (see. Rules for classification and construction of chemical carriers) (being developed);

.3 Mobile offshore drilling units and stationary offshore platforms (see. Rules of classification, construction and equipment of mobile offshore drilling units and stationary offshore platforms);

.4 High-speed vessels (see. Rules for classification and construction of high-speed vessels) (being developed);

.5 Small WIG of type A (see. Rules for classification and construction of small WIG of Type A) (being developed);

.6 Suitable for life underwater apparatuses, marine diving facilities and passenger submersibles (see. Rules for classification and construction of habitable underwater apparatuses, marine diving systems and passenger submersibles).

1.3.1.3

The SV Rules are applied to ships of mixed (river-sea) navigation of all types and purposes, including chemical and gas carriers, in addition to vessels to which the "Rules for classification and construction of mixed navigation vessels", namely except vodotonnazhnyh cargo vessels (self and non-self propelled, including tankers, fuelers, water suppliers, oil collectors, including oily water, support ships) and tugs, including pushers.For these vessels SV Rules and other rules are applicable under the provisions of "Rules for classification and construction of mixed navigation vessels."

1.3.1.4

SV Rules are applied to sea and mixed (sea-river and river-sea) navigation ships engaged in domestic sea (coastal) voyages, depending on navigation area limit sign in the symbol of ship's class under 2.2.5.1.5 with regard to the classification of passenger vessels under the European Parliament and Council Directive 2009/45 / EC of 6 May 2009 concerning the rules and safety standards for passenger ships, which entered into force on 15 July 2009 (revised version as amended by Commission Directive 2010/36 / EU of 01.06.2010), hereinafter Directive 2009/45 / EC, and with the use of vessels with:

with signs of **A, A-R1, A-R2, A-R2-S** and **A-R2-RS** (Class **A** of sea area pursuant to Directive 2009/45 / EC) - of the requirements of SV Rules for vessels respectively to unrestricted navigation area and with signs of restricted areas of navigation **R1, R2, R2-S** and **R2-RS** with separately specified in the SV Rules, Rules concerning equipment of sea ships, Rules on sea ships Load Line and Rules for ships cargo equipment, additional requirements for the signs **A, A- R1, A-R2, A-R2-S** and **A-R2-RS**;

with signs of **B-R3-S** and **B-R3-RS** (Class **B** sea area pursuant to Directive 2009/45 / EC) – of the requirements of SV Rules for vessels respectively with signs of restricted areas of navigation **R3-S** i **R3-RS** with separately specified in the SV Rules, Rules concerning equipment of sea ships, Rules on sea ships Load Line and Rules for ships cargo equipment, additional requirements for the signs **B-R3-S** i **B-R3-RS**;

with signs of **C-R3-S** and **C-R3-RS** (Class **C** sea area pursuant to Directive 2009/45 / EC) – of the requirements of SV Rules for vessels respectively with signs of restricted areas of navigation **R3-S** and **R3-RS** with separately specified in the SV Rules, Rules concerning equipment of sea ships, Rules on

sea ships Load Line and Rules for ships cargo equipment, additional requirements for the signs **C-R3-S** and **C-R3-RS**;

with signs of **D-R3-S** and **D-R3-RS** (Class **D** sea area pursuant to Directive 2009/45 / EC) – of the requirements of SV Rules for vessels respectively with signs of restricted areas of navigation **R3** and **R3-IN** with separately specified in the SV Rules, Rules concerning equipment of sea ships, Rules on sea ships Load Line and Rules for ships cargo equipment, additional requirements for the signs **D-R3-S** and **D-R3-RS**.

Upon confirmation of compliance with the EU directive called of passenger sea ships and mixed (sea-river and river-sea) navigation ships engaged on domestic voyages, which clearly defined by the guidelines in these parts of the above Rules, including 2.6.1 "Conformity in accordance with EC Directives" of General provisions on technical supervision, these rules are applied to new and existing vessels with regard to the definitions of those terms in accordance with 2.6.1.2 section 2.6.1 "Conformity in accordance with EC Directives " of General provisions on technical supervision. Other requirements of the above rules are applied under the sign of the vessel assigned as described above in this paragraph.

With confirmation of compliance even if necessary in accordance with the requirements of the application of the IMO resolution for existing ships, ships that were built to 2 years after the date of adoption by IMO of such resolution must not comply with this resolution if they meet the previous applicable resolution (s) in the presence of such. With confirmation of compliance with the said EU Directive passenger ships and high-speed passenger ships, which are used as public transport, the keel of which was laid or which were at a similar stage of construction on Oct. 1, 2004 or after that date must meet the requirements of this SV Rules, concerning safety of persons with reduced mobility.

Passenger ships and high-speed passenger ships, built by July 1, 2008 and after that date must meet the requirements of SV Rules concerning safety of persons with reduced mobility.

In the performance of those listed vessels international voyages, as well as vessels, which according to the 2.6.1.1.2 of General provisionson on technical supervision the said Directive is not applied, the requirements of the SV Rules should be applied without taking into account the requirements for vessels with signs in accordance with 2.2.5.1 .5 of this part of Rules.

1.3.1.5

Volume of requirements for special purpose vessels, contained in the SV Rules, for vessels with a gross tonnage of less than 500 is determined in each case by the Register.

1.3.1.6

In the classification of passenger ships and mixed (sea-river and river-sea) navigation ships engaged on domestic voyages, subject to classification according to Directive 2009/45/EC, in addition to the terms and their definitions in accordance with 2.6.1.2 of general provisions on technical supervision, the following terms and their definitions are used:

high-speed passenger ship means a high-speed vessel, as defined in Regulation X / 1 of the Convention SOLAS 1974, as amended, and the "Rules for classification and construction of high-speed vessels", which carries more than 12 passengers;

passenger ships engaged in domestic sea voyages in sea areas of class B, C or D (with signs of restrictions under-R3-S and B-R3-RS, C-R3-S and C-R3-RS, D-R3- S and D-R3-RS by 2.2.5.1.5 of this part of Rules) should not be considered as high speed passenger ships when:

- their volume of displacement to the designed waterline is less than 500 m3, and

- their maximum speed, as defined in 1.4.30 / 1.4.37 of high-speed craft Code is less than 20 knots;

GMDSS means the Global Maritime Distress Safety System as is set out in Chapter IV of SOLAS Convention 1974, as amended, and in Rules for sea vessels equipment;

significant wave height - means the average height of the one-third of highest waves observed over a given period;

sea areas - means areas identified in accordance with 2.2.5.1.5 of this Part I "Classification" of Rules for classification and construction of vessels.

However, for the use of provisions on radio communication, the definitions of sea areas will be accepted those specified in the 1.2 I of general provisions of part IV «Radio Equipment" Rules for equipment of sea ships and Rule 2 of Chapter IV of SOLAS 1974Convention, as amended;

persons with reduced mobility - means any person who has some difficulty in using public transport, including elderly persons, disabled persons, persons with impaired sensory perception and wheelchair users, pregnant women and persons accompanying young children;

port area - means an area other than the sea areas, see. above, as specified by the States - parties to Directive 2009/45 / EC, which extends to the most remote permanent working piers, which form an integral part of the port, or to the limits defined by natural geographical features that protect estuary or similar protected area.

1.3.1.7 Rules for classification and construction of sea vessels consist of this part I "Classification" and following parts:

II «Hull";

III «Appliances, equipment and supply";

IV «Stability";

V «Division into compartments";

VI «Fire protection";

VII «Mechanical installation";

VIII «and piping systems";

IX «Mechanisms";

X «Boilers, heat exchangers and pressure vessels";

XI «Electrical Equipment";

XII «Refrigerators»;

XIII «Materials";

XIV «Welding";

XV «Automation";

XVI «The design and strength of ship hulls and fiberglass life-boats";

XVII «General rules for construction and strength of oil tankers with double sides" (being developed);

XVIII «General rules for construction and strength of bulk cargo ships" (being developed).

When classifying vessels according to the SV Rules the following rules are applied:

Rules for the Equipment of sea vessels, consisting of the following parts:

I «Provisions on supervision";

II «Life-saving appliances";

III «Signal means";

IV «Radio Equipment";

V «Navigation equipment";

Rules of construction of ship hulls and floating structures using reinforced concrete;

Rules for sea vessels Load Line;

Rules for sea vessels cargo gear;

Rules for the carriage of grain;

Rules for the Prevention of Pollution from Ships, consisting of the following parts:

I «Requirements for the construction of ships and their equipment to prevent oil pollution";

II «Requirements for the construction of ships, their equipment and devices to prevent pollution during transportation of hazardous substances in bulk";

III «Requirements to equipment and appliances of vessls to prevent sewage pollution";

IV «Requirements for prevention of garbage pollution ";

V «Requirements for prevention of air pollution";

VI «Requirements to Anti-fouling Systems";

VII «Requirements to ship's equipment for compliance with marks ECO and ECO-S in class symbol";

VIII «Requirements to equipment of tankers for cargo operations at sea."

Measurement of sea vessels is carried out in accordance with the rules of measurement of sea vessels and vessels of mixed navigation.

1.3.2

Rules for classification and construction of mixed navigation vesselss

1.3.2.1

Requirements of Rules for classification and construction of mixed navigation vessels, further in this part the MNV Rules are applied to displacement cargo vessels (self-propelled and non-propelled, including tankers, bunkers, water suppliers, oil collectors, collectors of oily water, support vessels) and tugs (including pushers) of mixed (river-sea) navigation.

For classification and construction of vessels of other types and purposes, including passenger vessels, chemical carriers and gas carriersrequirements of Rules for classification and construction of sea vessels are applied. Requirements of MNV Rules are applied to ships carrying dangerous goods subject to the implementation of requirements of the documents mentioned in 1.3.2.4.

Requirements of MNV Rules are applied to materials and articles intended for installation on vessels specified above, the manufacture of which must be carried out under the supervision of the Register (lists of materials and products are given in the relevant parts of the MNV Rules).

1.3.2.2

Requirements of MNV Rules set out in respect of ships with sign of area of navigation **B-R4-RS** in a symbol of a ship's class should fully apply to vessels with tche sign **R4-RS** (without the sign **B**) in a symbol of a ship's class, unless otherwise indicated.

1.3.2.3

Definitions

Terms relating to common terminology are set out in 1.2 of this Part of the Rules and in the "General provisions on technical supervision."

For the purposes of CNV Regulation the following terms and definitions are additionally adopted:

.1 The height of waves - the estimated height of the wind waves with probability accepted for water areas of such category.

.2 Cargo ship - a ship designed for the carriage of cargo (dry cargo, liquid, combined, refrigerated, etc.).

.3 Coastal voyage - every voyage that is not international.

.4 International voyage - a voyage from the port of the country, which is a party to the international conventions to the port located outside this country, or vice versa.

.5 International voyage with restrictions - an international voyage with restrictions of wave height of 3 to 3.5% probability and distance from the shore, agreed with classification authority for each area of navigation separately, but in each case no more than 40 miles.

.6 Pusher - a vessel that has a quick coupler and is intended for towing by pushing other vessels and floating structures.

1.3.2.4

Applicable rules

In the performance of requirements of MNV Rules, in addition to the instructions contained in their respective units and sections, as appropriate, depending on the purpose of the ship and the area of navigation, is necessary to be guided by the requirements of the Rules of the Register, International Conventions and Codes, namely:

.1 For all vessels of mixed (river-sea) navigation referred to in 1.3.2.1 to requirements of:

.1.1 Rules for classification and construction of ships, set out in:

- Part X "boilers, heat exchangers and pressure vessels";

- Part XII "Refrigerators";

- Part XIII "Materials";

- Part XIV "Welding";

- Part XVI "The design and strength of ships and boats of fiberglass";

- Part XVII «General rules of construction and the strength of oil tankers with double sides" (being developed);

- Part XVIII «General rules for construction and strength of bulk cargo ships" (being developed).

.1.2 Rules of sea vessels cargo gear;

.1.3 Regulations for the Prevention of Pollution from Ships;

.1.4 Rules for classification and construction of inland navigation vessels set out in Part XIV "Appliances for the Prevention of Pollution from Ships";

.1.5 Rules for measuremment of sea and mixed navigation vessels;

.1.6 Regulations for measurement of inland navigation vessels (ships engaged on the international voyages on European inland waterways);

.1.7 Additional and / or other requirements set forth in the documents, applicable on European inland waterways of the area of operation of the vessel.

.2 For any ship of mixed (river-sea) navigation, engaged on international voyages in (from) seaport located outside Ukraine, to requirements:

.2.1 set out in 1.3.2.4.1;

.2.2 The International Convention for the Safety of Life at Sea (SOLAS 74/88), as amended;

.2.3 The International Code for the Protection of Ships and Port Facility (ISPS Code), as amended;

.2.4 The International Load Line Convention (LLC-66/88), as amended;

.2.5 The International Convention for the Prevention of Pollution from Ships (MARPOL 73/78/97), as amended;

.2.6 ILO Convention on Maritime Labour of 2006 on crews accomodation pursuant to Section 3 of the Rules and the Code of the Convention;

.2.7 Occupational Safety and Health (Dock Work) Convention. C152-ILO;

.2.8 International Code on Intact Stability of ships (2008 IS Code);

.2.9 International Life Saving Appliance Code (LSA Code)

.2.10 Code on Alerts and Indicators;

.2.11 International Code for Application of Fire Test Procedures

.2.12 Circular letter SLS.14 / Circ.144 on the use of equivalent means of providing with life-saving appliances of ships of 100 m or less (except for oil tankers, chemical tankers and gas carriers) flying the flag of Ukraine;

.2.13 Code of safe practice for ships carrying timber deck cargoes;

.2.14 Code of Safe Practice for Cargo Stowage and Securing .

.3 For vessels of mixed (river-sea) navigation carrying dangerous goods on European inland waterways requirements:

.3.1 Set out in 1.3.2.4.1;

.3.2 Set out in Part XIII «Vessels for carriage of dangerous goods" Rules for classification and construction of inland navigation vessels;

.4 For vessels of mixed (sea-river) navigation, which carry dangerous goods by sea, the requirements:

.4.1 Set out in 1.3.2.4.1 and 1.3.2.4.2.3;

.4.2 International Maritime Dangerous Goods Code (IMDG Code), as amended;

.4.3 International Code of construction and equipment of ships carrying Dangerous Chemicals in Bulk (BCH Code), as amended;

.4.4 International Code of construction and equipment of ships carrying liquefied gases in bulk (IGC Code), as amended;

.4.5 International Maritime Solid Bulk Cargoes 2008 (IMSBC) Code

.5 For supply vessels of mixed (river-sea) navigation requirements:

.5.1 Set out in 1.3.2.4.1;

.5.2 Resolution MSC.235 (82), as amended "Guidelines for the design and construction of offshore supply vessels";

.5.3 Resolution A.863 (20), as amended "Code of Safe Practice for the Carriage of Cargoes and Persons by Offshore Supply Vessels";

.5.4 Resolution A.673 (16), as amended "Guidelines for the Transport and Handling of Limited Amounts of Hazardous and Noxious Liquid Substances (LHNS) in Bulk in Offshore Support Vessels."

.6 For vessel of mixed (sea-river) navigation transporting bulk cargo requirements:

.6.1 Set out in 1.3.2.4.1;

.6.2 The International Code for the Safe Carriage of Grain in Bulk;

.6.3 International Maritime Solid Bulk Cargoes (IMSBC) Code 2008.

1.3.2.5

MNV Rrules consist of this part I «Classification" and following parts:

II «Hull";

III «Gears, equipment and supplies. Signal equipment ";

IV «Stability, the division into compartments and freeboard";

V «Fire protection";

VI «Mechanical installations";

VII «Systems and piping";

VIII «Mechanisms";

IX «Electrical Equipment";

X «Automation";

XI «Radio Equipment";

XII «Navigation equipment."

1.3.3

Rules for classification and construction of inland navigation vessels.

1.3.3.1 Requirements of Rules for classification and construction of inland navigation vessels further in this part of the IWS Rules applied to following inland navigation vessels:

.1 Passenger and tank vessels, intended for the carriage of flammable and other dangerous cargo, tugs, pushers and pusher-tugs, cargo ships-pushers, regardless of the length of the pusher and pleasure crafts, with the characteristics of length and LxBxT product in accordance with 1.3.3.1.2 of the ship, irrespective of power of the main engines and gross tonnage;

.2 Self-propelled vessels with a maximum hull length of 24m or more not specified in 1.3.3.1.1, with the power of the main engines 55 kW or more and for which the product of length L, width B and draft T is the volume of 100m³ and more;

.3 Vessels with a maximum hull length of 24m or more not listed in 1.3.3.1.1 and 1.3.3.1.2, with gross tonnage of 80 or more, or which are equipped with mechanisms and equipment with a total capacity of the primary engines of 100 kW or more, or for which the product of length L, width B and draft T is the volume of 100m³ and more;

.4 Pleasure craft referred to in 1.3.3.1.1 and vessels listed in 1.3.3.1.2 with a maximum hull length of 20m or more but less than 24m intended for navigation on inland waterways in the European Community.

Specified in 1.3.3.1.1 and 1.3.3.1.2 values of L, B and T are accepted in accordance with Part II of the "Hull" IWS Rules.

.5 Materials and articles intended for installation on vessels specified above, the manufacture of which must be carried out under the supervision of the Register (lists of materials and products are given in the relevant parts of the IWS Rules).

1.3.3.2 The requirements of IWS Regulation unless they otherwise specify, regarding the provisions of issue of the *Certificate of the Community*, as required by the European Parliament and of the Council 2006/87 / EC, see. 1.4.3 General provisions on technical supervision, are applied in full to vessels laid on December 30, 2008 and after that date. However, according to the provisions of the European Parliament and of the Council 2006/87 / EC, it does not apply to:

ferries;

sea vessels, including tugs and pusher that: are at sea or at the anchorage in the sea;

1. are temporarily on inland waterways, if they have:

2. certificate certifying compliance with the provisions of the International Convention of 1974 for the Safety of Life at Sea (SOLAS), a certificate confirming compliance with the provisions of the International Convention of 1966 on Load Lines and international certificate Oil Pollution Prevention (IOPP), certifying compliance with the provisions International Convention 1973 for the Prevention of Pollution from Ships (MARPOL), or in the case of passenger vessels not covered by the above Conventions, a certificate of rules and safety standards for passenger ships issued in accordance with Directive 2009/45 / EC, which establishes the rules and standards safety of passenger ships, or in the case of recreational craft not covered by the above Convention, a certificate of the country whose flag the ship is flying.

With respect to the application of IWS Rules requirements at issue of the Certificate of Community for vessels, which are in operation and have valid Ship's Certificate on 30 December 2008 is necessary to be guided by the requirements of Chapter 24 "Transitional and final provisions" and Chapter 24a 'Transitional provisions for craft not navigating on zone R waterways» of the Directive of the European Parliament and of the Council 2006/87 / EC.

3. With respect to the application of IWS Rules requirements to vessel in operation on waterways in the scope of Convention on the regime of navigation on the Danube and having national documents issued in accordance with the Recommendations of the Danube Commission, including those that take into account the provisions of the revised Resolution №17 as amended or Resolution №61 UNECE is necessary to be guided by Resolution 71 of session of the Danube Commission on mutual recognition of ship's certificates for inland waterway vessels by states - members of the Danube Commission from 10.12.2008 g. (doc. SC / SES 71/9).

1.3.3.3

Equipment of vessels necessary to establish minimum manning.

1.3.3.3.1

Propelled vessels, vessels-pushers, pushers, storage of vessels being pushed and passenger vessels with a minimum crew shall be equipped in accordance with Article 23.9 of Directive 2006/87 / EC.

1.3.3.3.1.1

When providing vessel with minimum manning crew in paragraph 47 of the Community Certificate shall be specified compliance of vesel with the requirements of paragraph 1.1 or 1.2 of Article 23.9 of Directive 2006/87 / EC.

1.3.3.3.1.2

The requirements of paragraphs 1.1 and 1.2 of Article 23.9 of Directive 2006/87 / EC, to which 1.3.3.3.2 and 1.3.3.3.3 that follow below correspond, conditioned with the implementation of requirements, defined by systems of ship's equipment "Standard S1» and "Standard S2» respectively.

1.3.3.3.1.3

For self-propelled cargo vessels, pushers vessels-pushers, storage vessels being pushed and passenger vessels equipped in accordance with the requirements of standard S1, may be assigned a minimum crew under Chapter 23 "Crews" of Recommendations annexed to Resolution №61 UNECE and "Recommendations on Technical Requirements for inland Navigation Vessels" of the Danube Commission, including in the case of not completing of a minimum equipment in accordance with the requirements of standard S1.

1.3.3.3.2

Requirements «Standard S1».

1.3.3.3.2.1

Operation of propulsive installation and support mechanisms necessary to ensure propulsion of the vessel must meet the requirements of 4.9.1 Part X "Automation" of IWS Rules.

1.3.3.3.2.2

The vessel must be equipped with emergency alarm system (EAS) and system ща protection, indication, registration and regulation under the provisions set out in Part X 2.4 "Automation" of IWS Rules, while at least, performance ща requirements must be provided:

.1 relatively to EAS - p.p.2.4.1.3, 2.4.1.4, 2.4.1.5, 2.4.1.6, 2.4.1.8 (only in part of the application to the wheelhouse), 2.4.11.1, 2.4.11.2;

.2 regarding system of protection, indication, registration and regulation - p.p.2.4.2.1, 2.4.2.2, 2.4.2.3, 2.4.2.6, 2.4.2.12, 2.4.2.12 Table №p / n: 1.1; 1.8; 1.9; 1.14; 1.16; 4.1; 4.3.

1.3.3.3.2.3

Vessels equipped with propulsive installation with controllable pitch propeller, and vane and alike propellers must be equipped with EAS in accordance with 3.2.1.12 part VI «Mechanical Installation" of IWS Rules.

1.3.3.3.2.4

Steering device and its operation must meet the requirements of 2.9.5 III «Gears, equipment and supplies. Signal means" of IWS Rules and 3.1.2.2 of the part XII" Navigation equipment "of IWS Rules.

1.3.3.3.2.5

Construction of control unit must comply with 3.1.2.1 of Part XII "Navigation equipment" of IWS Rules.

1.3.3.3.2.6

Pumps of drainage system must meet the requirements of 6.1.1 part VII «Systems and piping" of IWS Rules.

1.3.3.3.2.8

Pumps used for washing the decks must have mechanical drive.

1.3.3.3.2.9

Towing winches specified in paragraph 33 of the Community Certificate in accordance with the requirements of paragraph 1.1 (item j) of article 23.9 of Directive 2006/87 / EC should have mechanical drive.

1.3.3.3.2.10

Operation of sounds and distinctive signal lights must meet the requirements of 3.1.18 XII "Navigation equipment" of IWS Rules.

1.3.3.3.2.11

On ships where the possibility of direct earshot between the whellhouse and bow of the vessel, the stern of the vessel, the living quarters and the engine room is not available, internal communications service that meets the requirements of 7.2 Part IX "Electrical Equipment" of IWS Rules shall be provided.

1.3.3.3.2.12

On ships equipped with life boats should be implemented the requirement of 8.4.2.23 part III «Gears, equipment and supplies. Signal Means " of IWS Rules.

1.3.3.3.2.13

A swivel spotlight meeting the requirements of 2.1.1 (Table 2.1.1 №p / n 13) and 3.14.1.9 of XII "Navigation equipment" of IWS Rules must be installed on board,.

1.3.3.3.2.14

Effort needed to control handles and similar pivoting devices of lifting appliances must not exceed 160 N.

1.3.3.3.3

Requirements "Standard S2".

1.3.3.3.3.1

For self-propelled vessels engaged single voyage:

"Standard S1» and additional equipment with bow thruster, which can be operated from the ship's wheelhouse.

1.3.3.3.3.2

For self-propelled ships engaged in the movement in a lashed together group:

"Standard S1» and additional equipment with bow thruster, which can be operated from the ship's wheelhouse.

1.3.3.3.3.3

For propelled vessels-pushers engaged in movement of vessel train, which is pushed formed from the vessel-pusher and vessel / vessels being pushed located in front of the vessel-pusher:

"Standard S1» and optional hydraulic or electrical connecting winches. However, the presence of this equipment is not required if the ship, which is ahead of the vessel train, which is pushed, is equipped with a bow thruster which can be controlled from the wheelhouse of the vessel-pusher.

1.3.3.3.3.4

For pushers engaged in movement of vessel trains being pushed:

"Standard S1» and optional hydraulic or electrical connecting winches. However, the presence of this equipment is not required if the ship is ahead of the vessel train, being pushed is equipped with a bow thruster which can be controlled from the wheelhouse of the vessel-pusher.

1.3.3.3.3.5

For passenger vessels: "Standard S1» and additional bow thruster, which can be operated from the wheelhouse. However, the presence of this equipment is not required if the propulsive installation and the steering gear of a passenger vessel provide adequate maneuverability of the vessel.

1.3.3.4

Definitions.

Terms relating to common terminology set out in Part 1.2 of these Rules and General provisions on technical supervision.

For the purposes of IWS Rules, the following terms and definitions are addition adopted:

High-speedcraft - self-propelled vessel that can make navigation at speeds over 40 km / h relative to the surface of standing water.

Recreation vessel - a ship with a maximum hull length of 20 m and more, which is not a passenger and which is intended for recreation.

The gross tonnage - the dimensionless quantity determined based on the total volume in m3 of all premises of the vessel by the formula:

$$\boldsymbol{GT} = 0{,}353V,$$

where $\boldsymbol{V} = LBd\delta + LB\alpha\,(D - d) + \Sigma\, lbh$;

L*, *B*, *D*, *d – the estimated main particulars of the ship [length, width, depth, draft] m

δ – rates of displacement completeness;

α – rates of cargo waterline completeness;

1*, *b*, *h – average length, width and height of superstructures and deck houses respectively.

In calculating the gross tonnage the volume of the wheelhouse is not considered.

1.3.3.5

For inland vessels, in addition to the requirements of IWS Rules the following parts of the Rules of classification and construction of sea vessels of the Shipping Register of Ukraine are also applied:

IX «Boilers, heat exchangers and pressure vessels"

XII «Refrigerators»

XIII «Materials"

XIV «Welding»

XVI «The design and strength of ships and fiberglass boats."

For inland vessels are applied:

Rules for sea vessels cargo gear;

Rules for construction of ships hulls and floating structures using reinforced concrete.

1.3.3.6

IWS Rules consist of this part I «Classification" and following parts:

II «Hull";

III «Gears, equipment and supplies. Signal means";

IV «Stability, division into compartments and freeboard";

V «Fire protection";

VI «Mechanical installation";

VII «Systems and piping";

VIII «Mechanisms";

IX «Electrical Equipment";

X "Automation";

XI «Radio Equipment";

XII «Navigation equipment";

XIII «Vssels for the carriage of dangerous goods";

XIV «Means for the Prevention of Pollution from Ships."

1.3.3.7

Vessels with the Register class, assigned according to the IWS Rules can be operated outside inland waterways of Ukraine and the Danube River Basin, on the relevant to the class European inland waterways referred to in this paragraph 2.2.5.6.2.4 of this part of the Rules, subject to compliance with additional and / or other requirements set out in documents that are in force on those inland waterways.

1.3.3.8

Passenger traffic on the self-propelled inland navigation vessels is not allowed.

1.3.4

Rules for classification and construction of small crafts.

1.3.4.1

Requirements of Rules for classification and construction of small crafts further in this part of SC Rules are applied, except specified in 1.3.4.2, to ships and other floating structures and means which maximum hull length LH is 2.5m or more and up to 24m and / or those crafts are designed for navigation on inland (not

marine) waterways and the product of length LH, breadth BH and draft T of which is less than the volume of 100m³ and which are not intended for: the carriage of more than 12 passengers on board, the transportation of dangerous goods , their use as passenger ships, icebreakers, tugs, pushers, floating cranes, and technical fleet ships (ships boats, rafts) and water bikes.

1.3.4.2

SC Rules are not applied to crafts and vessels that are not subject to technical supervision of the Register, namely vessels and crafts with a maximum hull length of 2.5m, except water bikes; water rides, including "Bananas" and the like; surfboards, including those with sail or drive; antique and historical vessels and their copies labeled as such by the manufacturer; canoes, kayaks and gondolas; pedal boats; amphibians; seaplanes.

1.3.4.3

Alternatively, to the requirements of SC Rules, is allowed the use of the relevant requirements of ISO for small crafts (series 47.080: Small craft) to similar structures or requirements (the list of applied in development of SC Rules ISO standards listed in Appendix 1 to this part of the Rules.

For jet skis SC Rules are distributed subject to the requirements of ISO 13590: "Small crafts. Craft for individual use. Requirements for the construction and installation of systems. "

SC Rules are applied to materials and products intended for installation on the above specified in 1.3.4.1 small crafts, production of which should be carried out under the supervision of the Register (a list of materials and products is given in the relevant parts of the SC Rules).

1.3.4.4

Small crafts, except ferries, with length of 20 meters or more, intended for navigation on inland waterways in the European community, including river Danube in Ukraine, must satisfy the provisions of the "Recommendations on Technical Requirements for Inland Navigation Vessels" adopted and put into effect since January 1, 2008 by the Danube Commission, as amended, "Recommendations concerning coordinated at European level technical requirements applicable to inland navigation vessels", adopted on March16, 2006 №by the Resolution 61 UNECE as amended and of the European Parliament and Council 2006/87 / EC, as amended by that IWS Rules, which take into account these recommendations and guidelines as stated in these IWS Rules , see also 1.3.3.2.

Small crafts intended for operation in the marine environment must meet the requirements of "Rules for the Prevention of Pollution from Ships," according to the instructions of Part XIV «Means for the Prevention of Pollution from Ships" of SC Rules.

1.3.4.5

Definitions

Terms relating to common terminology are set out in 1.2 of this Part of the Rules and in the "General provisions on technical supervision."

For the purposes of SC Rules the following terms and definitions are additionally adopted:

L a u n c h - decked propelled or non-propelled vessel with capacity from 1 to 5 tons intended for carriage of goods and people, fishing.

U n d e c k e d v e s s e l - a vessel which over a length of less than 2/3 lengths LH of the ship from the forward edge of the deck is a decked vessel and / or which has a cockpit (recession) with a total volume coefficient CC ≥ 1 and / or Cockpits (recession) do not satisfy 10.2 of Part II «Hull» SC Rules.

C a r g o s h i p - propelled and non-propelled ship designed to transport various cargoes.

O p e n v e s s e l - decked ship, which hatches have no sufficient strength, rigidity and degree of water resistance or which hatches are open.

Distance to the place of shelter – maximum allowable distance in nautical miles (kilometers), measured along the shortest safe navigation in respect of the way from anywhere on the chosen route for navigation of the vessel to the nearest port or available place of shelter.

Sailing boat – undecked sailing ship with lengths up to 6,0m inclusively.

Wave height - estimated height of wind waves with probability accepted for water basins of the area or of the water basin.

In SC Rules, the following characteristics of waving with the definitions and designations are adopted:

- Significant wave height - $h_{1/3}$;
- Random wave height - hmax;
- Height of waves 1% provision - $h_{1\%}$;
- Wave height 3% provision - $h_{3\%;}$
- Significant wave height (wave 5% provision) - $h_{5\%}$;

and dependence applicable:

$h_{3\%} = 1{,}32\ h_{1/3} = 1{,}08\ h_{5\%} = 0{,}87\ h_{1\%} = 0{,}66\ h_{max}$

Significant wave height ($h_{1/3}$) - the average height of the highest one third of waves with wave heights of the totality of the continuous prolonged observation (within quasi-stationary waving), which roughly corresponds to the wave height, assaingly estimated in the experiment by the observer.

Random wave height (h_{max}) - is the height of the largest wave which has been detected at continuous prolonged observation.

Wave height of 1% provided ($h_{1\%}$) - estimated height of eirregular waving, at the appointment of which it is assumed that during the continuous prolonged observation 1% of actual waves may have a height equal to or higher than calculated.

Wave height of 3% probabilty ($h_{3\%}$) - estimated height of eirregular waving, at the appointment of which it is assumed that during the continuous prolonged observation 3% of actual waves may have a height equal to or higher than calculated.

Significant wave height of 5% probabilty ($h_{5\%}$) - estimated height of eirregular waving, at the appointment of which it is assumed that during the continuous prolonged observation 5% of actual waves may have a height equal to or higher than calculated.

> For navigating areas of inland waterways that differ on the most significant wave height corresponding to the 5-percent probability, in accordance with the attached resolution to UNECE №61 from 16 March 2006 as amended "Recommendations concerning coordinated at European level technical orders applicable to inland navigation vessels "" significant wave height "means the average arithmetic mean of the largest waves heights measured from the base to the crest of a wave, the number of which is 10% of the total wave after brief observation.

Water bike (craft for personal use) – vessel intended for recreation, with hull lengths less than 4 meters, which uses the poer installation having a water-jet as the main source of motive power, and designed to be controlled by a person or persons sitting, standing or kneeling on the body, and not inside it.

This term covers crafts with names: water-bike, scooter, jet-byke, jet-ski and the like.

Glider - craft, which while driving at a certain speed is supported mainly by hydrodynamic forces. Gliding mode corresponds to the speed of the craft at which the Froude number in displacement:

$$Fr_{\Delta} = \upsilon / \sqrt{g \sqrt[3]{V_D}} \ > 1{,}5 \ ,$$

where:
υ – speed of the craft, m/s;

g - free fall acceleration, m/s^2, g =9,81 m/s^2;

V_D – volumetric displacement of the vessel on the waterline, m^3.

Residential vessel - vessel which has a fully enclosed cabin, equipped with rigid deck with one or more fixed or suspended beds, benches, hammocks or similar pieces of furniture that can be used for a sleep while the ship is under way. The vessel is also considered a "residential" if the tissue closing is used instead of rigid doors or cabin has walls of fabric. The ship is not considered "residential" if:

- a tent is stretched over an open cabin or

- open side of the cabin has a partial splash protective fence and not closed with cloth on all sides.

Places for a sleep should have minimum dimensions: diagonal length 1.5 m, width at the widest point of 0.4 m and a minimum height above the space for sleeping 0.4 m throughout. Recreation on the open deck and compartments designed only as a pantry under the Guidelines for the owner, are not places for a sleep.

Protected waters - part water area adjacent to the coast and protected from the wind and waving naturally or protected from waving by the hydrotechnic construction.

The launch - a motorized vessel, except vessels carrying sailing gear, with hull length from 4,0m to 6,0m including, having a deck at least 1/3 the length of the hull from the forward edge and the engine permanently installed in a closed compartment and decked motor vessels with length of more than 6,0m to 15m with an outboard or permanently installed engine. Vesels without decks mentioned above are related to motor boats.

Catamaran - ship consisting of two hulls connected by a special bridge construction.

Commercial carriage of passenger - water trips, excursions, regular and irregular voyages between ports or moorings, operation of vessels vehicles at the mooring and other commercial exploitation of vessel with passengers on board, which is made under license in accordance with applicable law.

Small craft intended for carrying passengers, can be used for commercial carriage of passenger subject to the requirements of Part XIII "Special requirements for ships for commercial transportation of passengers" SC Regulation.

International carriage of passenger - transportation of passengers from the port of Ukraine to the port of another country or between ports of different countries outside Ukraine.

Motor boat - motor undecked boat with length up to 6.0 meters inclusive, in which the engine is installed open.

Training vessel - a specially equipped vessel designed to carry out practical training of persons who had practical and theoretical training. At this vessel cadets, who are used as staff or as alternates, if their number is not more than 12 persons are considered special staff.

Deck ship - a vessel in which the horizontal projection area limited by the side line, consists of any combination of: a watertight deck and superstructure, and / or those that meet the requirements of 2.8 part IV «Stability, floodability and freeboard" SC Regulation, quickly drained cockpit (recession) and / or waterproof cockpit (recession) with a total volume of less than $L_H x B_H x F_M/40$ and in which all closing with sufficient strength, rigidity and degree of water resistance, corresponding to section 9 of Part III "Gears, equipment and supply " of SC Rules. The area of recession permitted for vessels of sea and coastal 1 areas and some ships of 2-4 coastal navigation areas, restricted in accordance with the requirements of 2.9 part IV« Stability, floodability and freeboard " of SC Regulation.

Passenger capacity - the largest number of people allowed to locate on this vessel.

Patrol vessel - a vessel that can be used by supervisors, by police, customs, rescue and other services.

Floating cottage (houseboat) - propelled or non-propelled vessel, including moored vessel equipped for rest and / or people living on the water.

Pontoon - non-propelled decked ship, which may be a cargo pontoon or used as a single pontoon or pontoons for equipment piers, floating passages and crossings, as part of refuler to support refuler pipelines and so on.

Ferry - transport vessel for regular transportation of ground vehicles, people and goods from one bank to another.

Pleasure boat - a ship of any type, excluding jet ski, regardless of the driving force, with a maximum hull length of 2.5m to 24m, intended for leisure purposes (walking, relaxing, not industrial fishing, tourism, etc.) of people on water in an amount of not more than 12 passengers. (Definition of the term is harmonized with the same term of the European Parliament and EU Derective 2013/53 / EC).

Refuler - floating pipeline through which ground or sand mixture (slurry) is pumpedof from dredger.

Operating boat - watercraft designed and equipped to perform offshore, mooring and other ancillary works.

Vessel with auxiliary aero-hydrodynamic equipment - a vessel which is designed so that during the movement much of its mass is supported by aero-hydrodynamic forces that are formed by this equipment.

Hydrofoil (HV) - a vessel while driving can be supported above the water by hydrodynamic forces generated by hydrofoil.

Hovercraft (HC) - a vessel in which all or a substantial part of her weight is supported by air pressure pumped in enclosed space underneath the vessel, called the air bag. HC can be amphibious (HC) and skeg (HC) type.

Trimaran - a vessel in which the middle tonnage hull is connected by a special construction with two side hulls.

Tourist ship - a vessel which by her design and navigability characteristics is suitable for the implementation of a long voyage on the tourist route (routes)

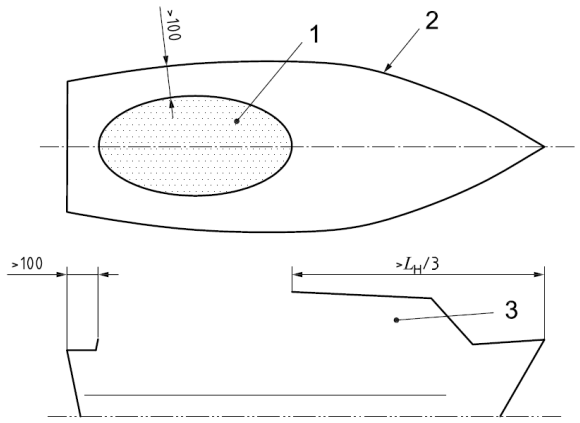
Partially closed vessel - a ship which does not meet the definition of the decked ship and where the projected area in terms of floor deck, cabin, weather shelter, niche of outboard engines or other hard covers are waterproof in accordance with Section 9 of Part III «Gears, equipment and supply " of SC Regulation from which water drains directly overboard (not through drainage), and:

- Cover at least one-third of the projection area in terms of side line, and

- Include all the space on the length $L_H/3$ from the bow to the stern part, and

- Include at least the width of 100 mm inside from the side line, except in the area of any watertight recession with a total volume of less ($L_H x B_H x F_M$) / 40, from which the water can drain through the drainage. These niches of outboard engines are considered those that ensure compliance with these purposes.

Illustration to definition is shown in Fig. 1.3.4.5.



1 - recession, opened on top (less than two-thirds of the total side line area of the projection);

1 - side line;

3 - open shelter from bad weather or closed deck house.

Fig. 1.3.4.5. Partly closed ship (sizes in mm)

The boat - rowing boat with capacity up to 1 ton, equipped with a tween or single blade oars.

Yacht - pleasuer-tourist vessel, except rowing boats, which has enclosed spaces designed to accommodate all persons provided on board.

Motor yacht, motor-sailing yacht, sailing yacht, sailing-motor - yacht depending on the driving force or a combination of the driving forces, see. 1.3.4.6.

The following terms are to facilitate the assignment of floating means to those requirements which do not apply SC Regulation under 1.3.4.2, namely:

Amphibian - wheeled or tracked motor vessel, which is able to operate both on water and on solid ground.

Water attraction - the kind of recreational activities on the water, the water structure or device designed for entertainment.

Water attractions include: water skis and sledges; towed washers; craft such as "banana" and the like; water slides; roundabouts; ferris wheels (the list is not complete and may be supplemented by the Register)

"Banana" and the like - non-propelled inflatable crafts towed by a motor craft and intended for brief water sports and recreational trips of passengers sitting on the equipped seats on the top of the inflatable craft hull;

Kayak - a small light closed vessel propelled by muscular strength using tween-blade oar, which is a sign that distinguishes canoe from other types of rowing boats and which has sharp hull (hull fullness factor of about 0.5 and a significant extension that always exceed the 5). Single canoe - kayak;

Water bike - floating craft that moves through physical strength of man by propelling screw / screw or wheel / wheels and is designed to carry one or more persons who are at special sittings on the hull / hulls;

Gondola - traditional Venetian rowing boat;

Seaplane - airplane adapted for take off and landing on the water;

Canoe - universal name of small rowing vessels (boats) without an oar crutch having typical way of rowing by a single paddle oar and differing in seating position (kneeling), method of rowing (one blade), the increased width of the hull and the shape of the seat;

Passenger ship - a ship, including moored ship, built and equipped for transportation or stay of more than 12 passengers;

Ship boat (boat) - a small vessel that is installed on board for different purposes and is her gear. Ship boats are divided by purpose into life boats, rescue boats, working boats, specially-cargo boats, towing boats, sounding boats, diving boats. In SC Rules is used the term "gross tonnage" that (only to apply the Rules) means a dimensionless value determined based on the total volume of the vessel by the formula:

$GT = 0{,}353\ V$,

where $V = LBT\delta + LB\alpha\,(D - T) + \Sigma\ lbh$

L, B, D, T – Structural dimensions of the ship [length, width, depth, draft] m

δ - rates of displacement completeness at full load

α - rates of waterline completeness at full load

1, b, h - average length, width and height of superstructures and deck houses.

In calculating the gross tonnage the volume of the wheelhouse is not considered.

1.3.4.6 The types of small crafts, depending on the driving force provided:

- Motor - a ship which movement is carried out by the mechanical driving unit (propellers, paddle wheels, water cannon, propeller, etc.) with the primary engine;
- Sailing - a ship which movement is carried out by the device using wind energy;
- Rowing - a ship which movement is carried out by the physical strength of a man;
- Self-propelled - motor, sailing and rowing vessels;
- Non-propelled - a vessel for purposeful movement of which an object or a gear located outside the vessel is used;
- Berth-connected vessel - a vessel intended for use in accordance with the purposes in the moorage.
- When driving forces are combined (engine and sail, sail rowing, or sail-rowing-engine) the ship is considered as a motor boat and / or sailing and / or rowing depending on the following:

.1 The vessel, at which translational motion is provided by the energy of the wind, is considered as sailing if the area of sail rigging meets the requirement m^2:

$$As \geq 0{,}07\ \Delta_{max}^{2/3}, \qquad (1.3.4.6.1)$$

where: Δ_{max} – displacement at full load, kg.

In smaller area of ship's sail rigging requirements of SC Rules concerning stability and freeboard of sailing ships are not applied. Area of sail rigging $\mathbf{A_S}$, m^2, is determined in accordance with 1.3.4.10.2.22 of this paragraph.

.2 Rowing or motor vessel of open type or open or inflatable boat or frame and fabric, equipped with sail rigging is regarded as a sailboat, regardless of the area of sail riggging.

.3 Rowing or sailing vessel with an internal combustion engine is considered also as a motor (including motor-sailing), if the nominal power of engines of propulsive installation of the vessel satisfies the condition kW:

$$\boldsymbol{N_e > 5\ (\Delta_{max}/100)^{1/3}}, \qquad (1.3.4.6.3)$$

where: Δ_{max} – displacement at full load, kg.

At lower power of propulsive installation or an internal combustion engine installed not for purposes of motion, the vessel is considered as sailing-motor vessel or rowing-motor vessel.

Motor-sailing vessels must fully satisfy the requirements set as for motor vessels and for sailing ships.

Rowing vessels defined as motor must fully meet the requirements set as for motor vessels and to the rowing boats.

Sailing-motor vessels and rowing-motor vessels must fully meet the requirements provided accordingly to sailing or rowing vessels, as well as meet the requirements for vessels on board which internal combustion engines are installed

1.3.4.7

The vessel is considered as highspeed, if she is a vessel with dynamic principles of support, including hydrogliding

or vessel capable to develop maximum speed in tonnage condition,equal to or greater than the lesser of variables, determined by formulas, m/s:

$$\upsilon \geq 3{,}7\ \Delta_{min}^{1/6} \qquad (1.3.4.7\text{-}1)$$

$$v \geq 2{,}7\ L_{WL(min)}^{1/2} \qquad (1.3.4.7\text{-}2)$$

where: Δ_{min} – ship's minimum operating displacement , see. 1.2 of Part IV «Stability, flodability and freeboard, t;

$L_{WL(min)}$ - length of the vessel on the waterline at Δ_{min} , m.

For multiple hulls ships calculation according to formula 1.3.4.7-2 is performed for each hull.

1.3.4.8

The following rules are applied to small crafts where applicable and appropriate, with special consideration of their requirements application :

.1 Rules for classification and construction of ships, set out in the following sections of the SC Rules:

X «Boilers, heat exchangers and pressure vessels";

XII «Refrigerators»;

XIII «Materials";

XIV «Welding";

XV «Construction and strength of ship hulls and boats of fiberglass."

.2 Rules for classification and construction of high-speed crafts.

.3 Rules for ships equipment.

.4 Rules for sea ships cargo gear.

.5 Rules for construction of ship hulls and floating structures using reinforced concrete.

To floating piers and refulers, consisting of several small vessels (pontoons, refuler pontoons), permanently interconnected to be used for the main purpose, which meet the requirements of the SC Rules (pipeline of the refuler is not subject to technical supervision), depending on area of operation, the additional requirements of the SC Rules and INV Rules are applied concerning the requirements arising and considering the excess total hull length of the floating pier or refuler, namely 24m or more and for inland vessels, which is LHxBHxT is a volume of 100m³ and more with consideration of a floating pier and refuler as a single floating craft in accordance with the requirements of the SC Rules and INV Rules for its overall strength, including local strength of vessels' joints (pontoons), reliability of installation (anchor or mooring appliances), rescue and signaling means, gurd rails. These floating piers and refulers are classified in accordance with SC Regulation with setting the operation conditions on the basis of the lowest for vessels in the compound. This provision does not apply to passenger floating piers designed for accomodation of more than 12 people, and other vessels that are not floating piers and refulers.

1.3.4.9

SC Rules consist of Part I "Classification" and following parts :

II “Hull”.

III “Gears, equipment and supply.”

IV “Stability, floodability and freeboard.”

V “Mechanical installation. Mechanisms. Systems and pipelines.”

VI “Automation.”

VII “Electrical Equipment.”

VIII “Radio and navigation equipment.”

IX “Life-saving appliances.”

X “Fire protection”.

XI “Ships trials.”

XII “Materials”.

XIII “Specific requirements for vessels for commercial transportation of passenger.”

XIV “Means for the Prevention of Pollution from Ships.”

1.3.4.10

Basic information about the ship

This section establishes the homogeneity of key definitions of particulars and data on the condition of loads of a small craft in accordance with the ISO 8666: 2002 "Small crafts. Basic data " and applied in the SC Rules. Thus considered relative definition s of standards ISO 12217.

Symbols used in SC Rules, are indicated in brackets in their difference from ISO 8666: 2002.

1.3.4.10.1

Terms and definitions

The terms in this section define the following:

Waterline, WL - a line crossing the plane, which coincides with the surface of calm water with the ship's hull, which is a straight line on the ship projections "side" or "hull" and has its real shape to the projection of "half-breadth plane";

Constructive waterline, WLref, - waterline of a ready-to-operation in full load condition;

Side line - a line of crossing of the upper deck surfaces with ship sides or their extensions when rounded connection of the deck with the side or side line upper position in the absence of the deck or the side protrudes above the deck, see also Fig. 1.3.4.10.2.7 in the determination of Δ_{max} for side line position with hacking of connection between the deck and the side;

The breadth of the transom, B_T - maximum width of the hull on the upper edge of the transom, but not above the side line, excluding protruding parts (extension) of the hull, handrails and fittings. If the spray reflectors act as bilge or a part of gliding surface, then they are included in the breadth of the transom.

For vessel with rounded or pointed stern or transom width less than half the width of the largest vessel, transom width is defined as the greatest width of the hull through the side or below it in the stern of the ship at ¼ the length of the hull to the bow;

Displacement, (Δ) - the mass of water displaced by the ship's hull, including all fixed underwater protruding parts. Displacement is measured in kilograms or tonnes;

Displacement at full load, m_{LDC}, (Δ_{max}) - the mass of water displaced ready for operation of the ship, including all protruding parts submerged in a state of full load according to 1.3.4.10.3.3,

Volume displacement, VD - the volume of water displaced by the ship's hull, which corresponds to the mass displacement of water as defined above, m3. Where the density of water, which is used to calculate the volume of displacement does not correpond to salt water with density of 1025 kg / m3, density of water that is used to calculate volume displacement is indicated;

Capacity of the tank - a useful volume of the tank of the motionless vessel on the construction waterline WLref, m3.

Basic designations (abbreviations) and their measurement units, used in different parts of SC Rules, are given in Table 1.3.4.10.1.

Table 1.3.4.10.1 Designations (abbreviations) and measurement units

Symbol	Definitions	Measurement units
A_S	Sail area	m^2
B_H (B)	Hull breadth (largest breadth)	m
B_{max}	Maximum breadth (overall breadth)	m
B_{WL} ($B_{ВЛ}$)	Waterline breadth	m
B_T	Transom breadth	m
D_{max}	Maximum depth	m
$D_{L_{WL}/2}$ (D)	Midships depth (depth)	m
F	Freeboard	mm
F_A	Aft freeboard	mm
F_F	Forward freeboard	mm
F_M	Midships freeboard	mm
H_a	Надводний габарит	m
L_H	Hull length (largest length)	m
L_{max}	Maximum length (overall length)	m
L_{WL} ($L_{ВЛ}$)	Waterline length	m
m_G	Gross mass	kg, t
m_{LDC} (Δ_{max})	Maximum displacement in load	кг
m_{LC} (Δ_{min})	Minimum displacement empty	kg, t
m_N	Net mass	kg, t
m_P	Perfomance trial mass	kg, t
m_L (DW)	Deadweight	kg
T	Draft	m
T_C	Constructive draft	m
T_{max}	Maximum draft	m
T_{min}	Minimum draft	m
V_D	Volume displacement	m^3
V	Volume	m^3
V_H	Hull volume	m^3
V_S	Superstructure volume	m^3
WL	Waterline	

Symbol	Definitions	Measurement units
WL_{ref}	Construction waterline	
β	Deadrise angle	^{o} (degree)

1.3.4.10.2

Determination of vessel's dimentions

.1 The dimensions of the ship are determined in the ship motionless condition without roll at flatwater in displacement in on construction waterline, unless otherwise indicated.

.2 The dimensions of the vessel are measured perpendicular to midships, or diametrical plane or parallel to the main water line of the vessel, as the distances between two perpendicular to the respective planes.

.3 Maximum length (overall length), L_{max}

This length includes all structural and integral parts of the hull, such as forframe, sternpost, bulwark and other gears and structures attached to the hull.

If applicable, this length should include permanently attached parts, such as stationary rigging, bowsprit, platforms, encompass and rubbing strakes, stationary fenders, hinged control surfaces, outboard engine fixings, outboard driving units, water cannons and any other structures, such as platforms for swimming and / or embarkation on the ship.

Outboard driving units, water cannons and all moving parts must be in their normal operating mode at their maximum size along the ship when the ship is ready to move. outboard engine, as well as any other type of equipment that can be dismantled without tools are not included in maximum length.

See Fig. 1.3.4.10.2.3-1 and 1.3.4.10.2.3-2 for measuring monohull and Fig. 1.3.4.10.2.3-3 for multiple hull vessel measurements.

.4 Hull length (maximum length), L_H

This length includes all structural and integral parts of the hull, such as wood, plastic or metal foreframes or aftframes, bulwarks and the hull and the deck connection.

This length excludes removable parts that can be removed without destroying manner, without affecting the structural integrity of the hull, for example, spar bowsprit, bulwarks and ship's platforms, stem fittings, rudders, outboard driving machines, overhead motors and their mounting platforms for swimming and embarkation on the ship rubbing strakes and fixed fenders.

This length does not exclude detachable hull parts that serve to ensure the maintenance of hydrostatic or dynamic support when the ship is under at rest or on the move.

Multiple hull vessels for each hull length should be measured individually. The longest length of her hull shall be admitted as the length of the hull of the vessel.

See Fig. 1.3.4.10.2.3-1 and 1.3.4.10.2.3-2 for measuring monohull and fig. 1.3.4.10.2.3-3 for multiple hull vessel measurements.

.5 Waterline length, L_{WL}

The length of the hull on the water line for the project ship is determined on the basis of .2.1 and .2.2 between the points of intersection of the bow and stern parts of the waterline that corresponds to the state project with the project different with diametrical plane. The length of the designed waterline is determined for the state of the vessel ready for operation with the largest project loads. The waterline length of the multiple hull vessel is refered to the longest of the hulls.

.6 Maximum breadth (overal breadth), B_{max}

The maximum breadth is measured on the basis of .2.1 and .2.2 between perpendiculars to the main plane passing through the most remote parts of the breadth of the vessel. The maximum breadth includes all structural or integral parts of the vessel, of overhang type (crinoline) of the hull, hull connections with deck bulwark, rubbing strake, stationary fenders and guard rail and other protruding parts of the vessel.

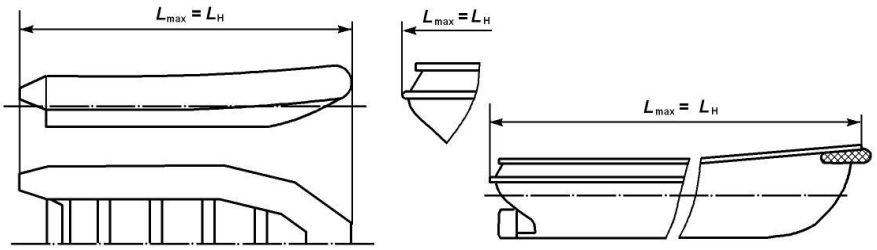


Fig. 1.3.4.10.2.3-1. Determination of L_{max} and L_H for motor single-hull crafts

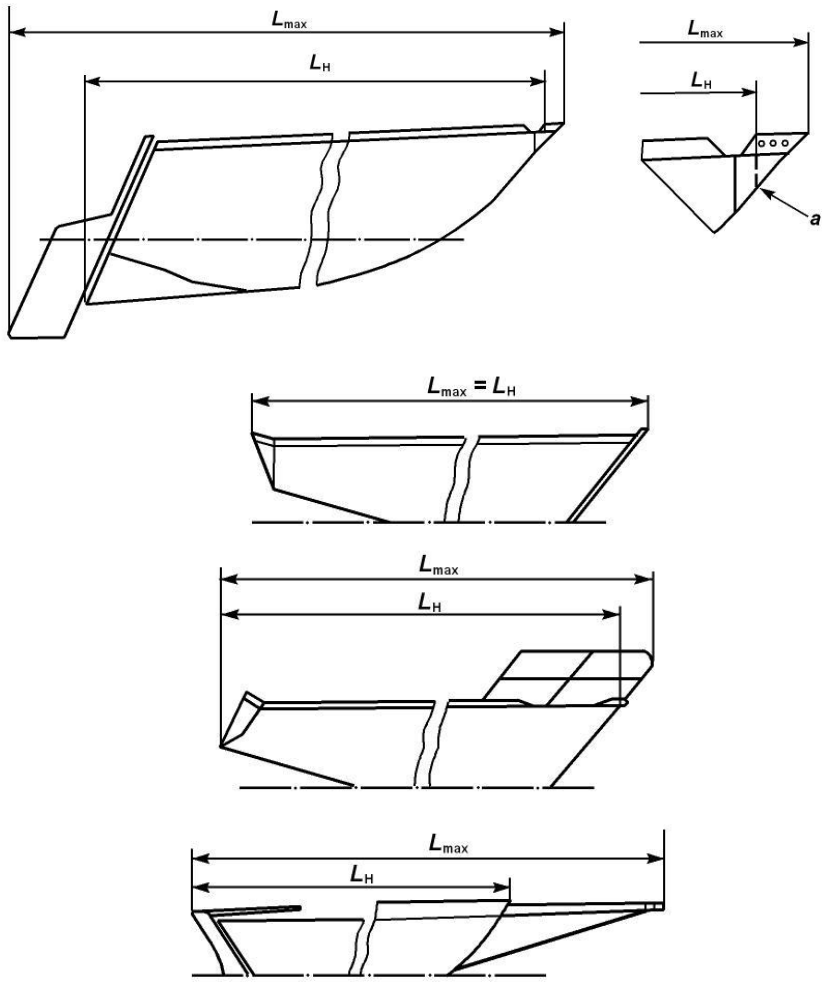


Fig. 1.3.4.10.2.3-2. Determination of L_{max} and L_H dimentions for single hull sailing vessels.

.7 Hull breadth (maximum breadth), B_H (B)

The breadth of the hull is measured taking into account .2.1 and .2.2 between perpendicular to the main

plane passing through the most remote not removable breadth parts of the hull.

Hull breadth includes all structural or integral part of the vessel like hull extension (exessions), hull connections with the deck plating and bulwarks.

The breadth of the hull does not include removable parts that can be disconnected without destroying way without damage and breach of the integrity of the vessel, such as rubbing strakes, fenders, handrails and pillars that protrude over the ship's side and other similar equipment.

The breadth of the hull must include detachable hull parts that serve to ensure the maintenance of hydrostatic or dynamic support when the ship is at rest or on under way.

For multiple hull vessels the breadth of her hull is measured respectively for each single hull.

See Fig. 1.3.4.10.2.7 a for measuring of a monohull and fig. 1.3.4.10.2.3-3 for multiple hull vessel.

.8 Waterline breadth, B_{WL} ($B_{ВЛ}$)

Waterline breadth is measured considering .2.1 and .2.2 as the maximum distance across the breadth between the points of intersection of the surface of the hull with waterline plane at a certain load condition of the vessel.

For multiple hull ships the breadth across the waterline should be set individually for each hull.

.9 Maximum depth, D_{MAX}

The maximum depth is measured as the vertical distance between the side line for half the length of the waterline, LWL (LVL) and the lowest point of the keel. This should take into account that the traditional ship with developed keel or with constructive trim the slope of the keel can increase the depth at the stern of the vessel and, accordingly, the very lowest point of the keel for this measurement will not be half the length of the hull or waterline.

.10 Midships depth (depth), $DL_{WL/2}$ (D)

Depth measured at the midships at half the designed waterline length as the distance between the side line and lowest point of the keel in the same section.

.11 Freeboard, F

The height of the freeboard is measured considering .2.1 as the shortest distance between the side linein a particular place along the waterline of the ship and waterline plane for a given loading condition of the vessel.

.12 Aft freeboard , F_A

Height of freeboard at the stern of the vessel is measured according to the extreme point .2.11 in line to board the stern of the vessel.

.13 Midships freeboard, F_M

Height of freeboard at the midships is measured according to .2.11 half the length of the designed waterline.

.14 Forward freeboard, F_F

Height of freeboard at the bow of the ship is measured according to .2.11 in extreme forward part of the side/deck line.

.15 Draft, T

Draught is measured as the vertical distance between the waterline of the vessel in fully loaded condition ready for use and a defined point of the hull underwater (see. Fig. 1.3.4.10.2.7)

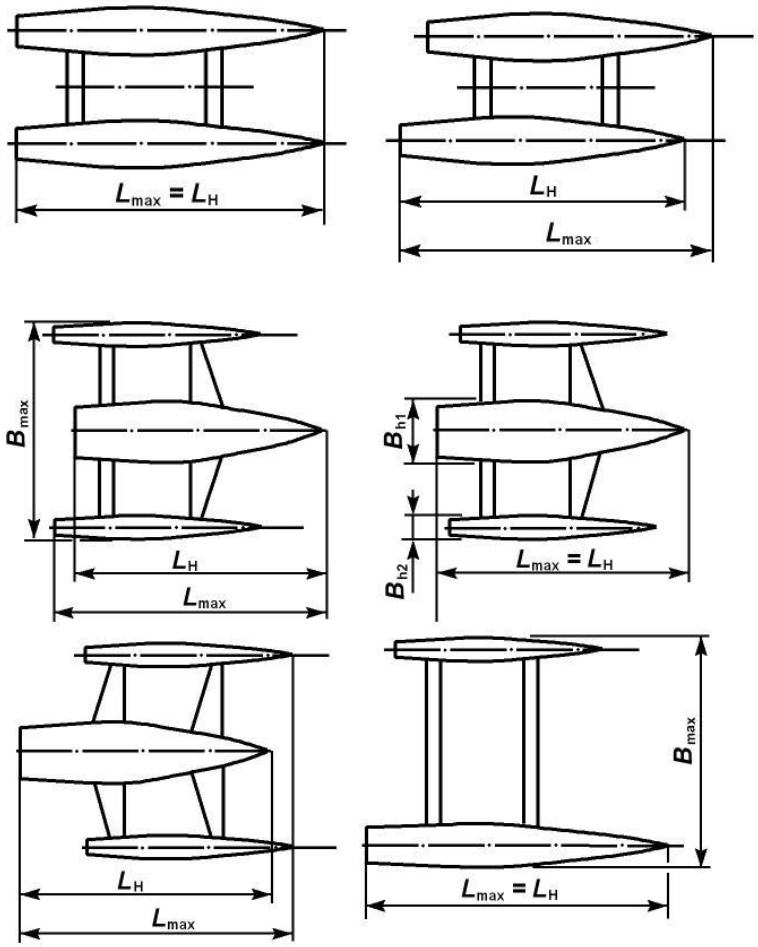


Рис. 1.3.4.10.2.3-3. Determination of dinesions L_{max}, L_H, B_{max} і B_H for multiple hull vessels

.16 Maximum draft, T_{max}

Maximum draft is measured to the lowest point of the hull underwater part or attached gear, including keel, including retractable, retractable centreboard or centerboards in their lowest position.

.17 Minimum draft, T_{min}

Minimum draft is measured to the lowest point of the vessel or not attached retractable gear, whichever is lower. All retractable underwater parts should be raised to their highest position.

Note: 1- tangent line to midships frame at the inflection point (if inflection).
The upper position Dmax depends on the slope angle of surface of connection fracture of the side/deck α in area of the actual deck connection with the side. If α ≥ 45 ° a lower position is adopted,and where α <45 ° a higher position is applied.

.18 Constructive draft, T_C

Constructive draught is measured between crossing of the hull with the diametrical plane of the vessel at the lowest point of the hull. In cases where the keel can not be easily separated from the body, constructive draft shall be determined at the point of intersection of the tangent to the surface of the hull closest to the horizontal plane with the diametric plane. Constructive draught does not include protruding parts such as rudders and skegs.

.19 Room height

The height of the room is measured as the vertical distance from the highest plane of the cabin / compartment floor plating to the underside of the deck beam or deckhead sewing (whichever is below) in a

particular place. The manufacturer can indicate the room height and in other places, such as above the beds.

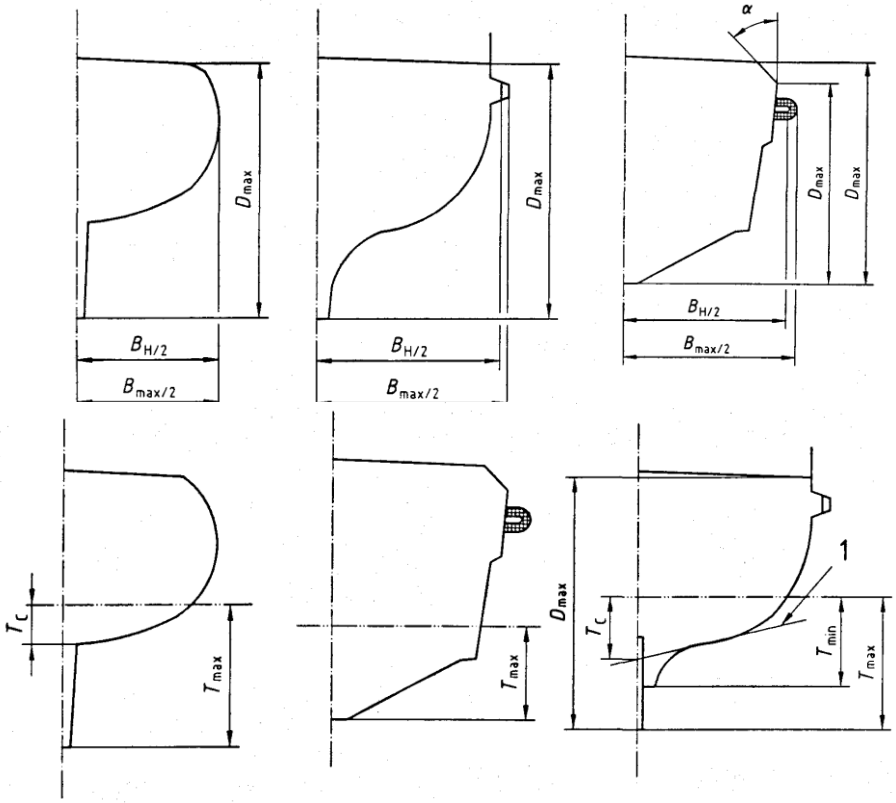


Fig. 1.3.4.10.2.7 Determination of dimensions B_{max}, B_H, D and T.

.20 Air draft, At

Air draft is measured as the vertical distance from the surface of the water at ship' empty displacement to the highest point of the ship construction or mast.

The manufacturer may specify in the Manual for the owner of the ship the need to make a correctiont to the said air draft concerninc the installation of a masthead light and the possible installation of antennas (aerials).

.21 Deadrise angle, β

Deadrise angle - the slope angle of the bottom from horizontal position in a certain cross-section of the vessel, measured according to Fig. 1.3.4.10.2.21, in degrees.

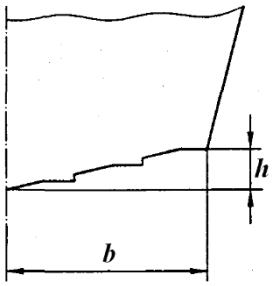
.22 Sail area, A_S

The project area ship sails, m2, defined as the sum of projected areas of horizontal sails that can be simultaneously installed by driving vehicles course "wind on the bow" and attached to booms, gaffs, bowsprits or other masting, and area of fore and aft sails to the most remote forestays permanently attached during the operation of the ship (without imposing one to the other); while the fore and aft leeches of fore and aft sails are taken as straight lines.

The area of fore and aft sails for each mast must be defined as $I \times J / 2$ where I and J - the distances between the front side of the mast and feeding edge of forestay and deck line at the side as shown in Fig. 1.3.4.10.2.22.

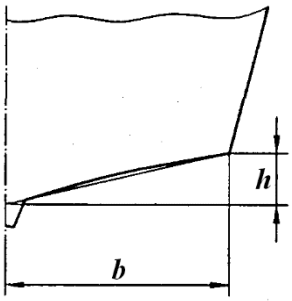
If forestays between masts do not reach the deck, the area of fore and aft sails should be adopted, as shown in Fig. 1.3.4.10.2.22 (P and E), but just in case the sails are bearing that can be found on the availability of appropriate guys.

Square of masing is not included the construction sail area, which is determined, except masts with wing profile.



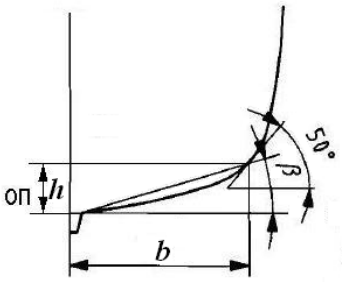
a) Flat bottom

Deadrise angle is measured excluding a planing step and other protruding parts



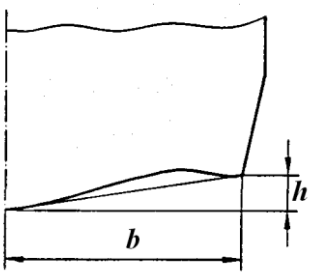
b) Concave bottom with the keel

Deadrise angle is measured between the points of intersection of the bottom with the keel and bilge.



c) Convex bottom

Deadrise angle is measured at the point where the tangent to the outer plating is at an angle of 50 ° to the main plane

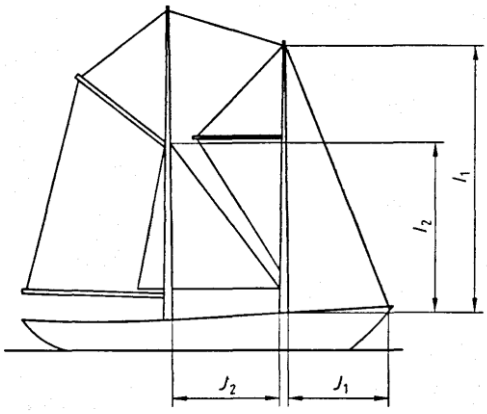


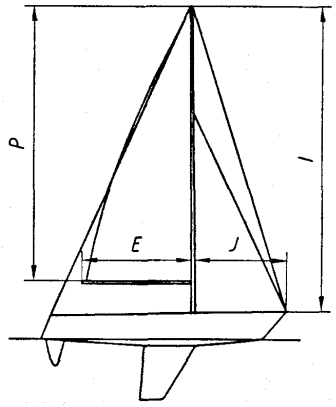
d) Concave bottom with the wing

Deadrise angle is measured between the main line and the outer end of the wing.

Calculation of deadrise angle: β = arctg (h/b)

Fig. 1.3.4.10.2.21. Deadrise angle determination





Note. The mast, which has a wing profile is characterised by its cross-section, which has a smooth transition in the aft end part into the sail, thus, contributing to its driving force. Cross-sections of masts are usually oval, sometimes there are round or rectangular cross-sections.

Fig. 1.3.4.10.2.22. Sail area detrmination

.23 Volume, *V*:

Ship volume is determined in accordance with the following formula, m^3:

$$V = V_H + V_S \ , \qquad (1.3.4.10.2.23)$$

where:

V_H - hull volume, m^3;

V_S - superstructure volum, m^3.

The volume of the vessel should be determined for each element of the maritime architecture by methods or according to rough estimates set out in .2.23.1 and .2.23.2.

Volume can be established by measuring the breadth of the hull in different cross-sections along its length, performed as indicated in Fig. 1.3.4.10.2.23.

.23.1 Hull volume, V_H

Using an approximate method, the hull volume can be determined by measuring the breadth of the hull in different cross-sections along its length, performed according to Fig. 1.3.4.10.2.23, by formula, m3:

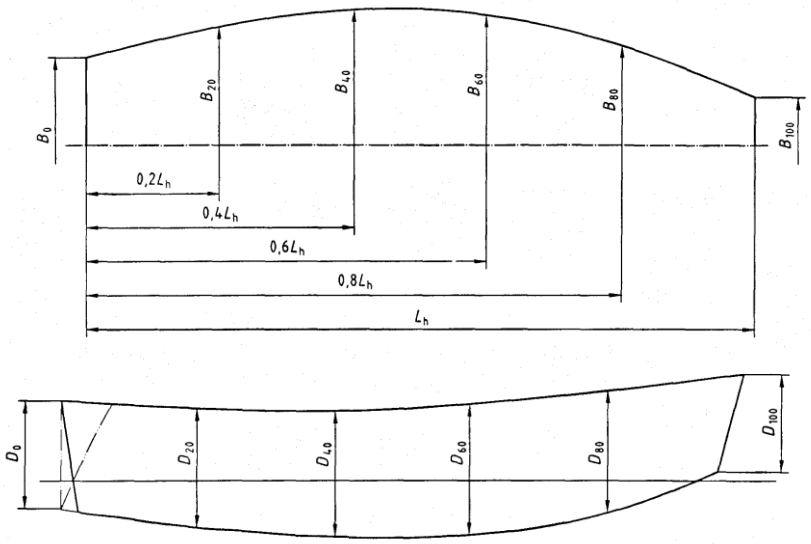


Fig. 1.3.4.10.2.23. Measurements for ship hull volume determination

.23.2 Superstructure volume, V_S

Superstructure volume is determined as the sum of volumes for each part of the superstructure above the deck side line. Any space that is "open" not more than from one side, should be included in the calculation.

"Open" in this sense means that no more than 10% of the area may be closed by the construction of the superstructure.

Volumes of less than 0.05 m3 may be disregarded.

.24 Net mass, m_N

Ship transportation net mass includes all fixed and moving equipment supplied by the manufacturer to complete the vessel, but shall not include appliances used in transportation of the vessel.

.25 Gross mass, m_G

Ship transportation gross mass includes net mass in accordance with .24 and also adjusting, fixing and protection devices for transportation, such as stocks, supports, fastenings and protective closure.

.26 Light condition mass, m_{LC}

.26.1 Construction and equipment included in m_{LC}.

Ship light condition mass includes:

.1 All structural parts including ballast keel and / or retractable keel / centreboard / centreboards and helm / control surfaces;

.2 Ballast - removable ballast (solid or liquid) that is deliverev with the vessel and / or intended by the manufacturer for use in navigation of the ship;

.3 Interior design and facilities, including: recesses and bulkheads, insulation, plating, built-in furniture, materials buoyancy units, windows, hatches and doors, cladding materials;

.4 Engine and fuel / lubricant system.

Engine and fuel / lubricant system installed permanently.

Stationary mounted engine and fuel / lubricant systems are the engine(s), located inside the vessel, including all suoolies and control devices that are essential to her operation, and stationary fuel / lubricant systems, including their tanks;

Outboard engines.

Ship mass should be specified with a mass of suspended engine(s), including:

- The mass of heaviest engine(s) recommended for use by the manufacturer of the vessel, regardless of whether that packaging of machinery and equipment is related to her, when shipping the vessel by the manufacturer may have carried out separately;

- The mass of any stationary fuel / lubricant system;

- Mass engine and steering control units

.5 Internal equipment, including:

- All the equipment, which is permanently installed on the ship, e.g. tanks (removable tanks and canisters), system / systems of waste and household water treatment, water-supply equipment, drainage system (systems), galley and heating appliances, refrigeration equipment, ventilation system (systems);

- Electric installation and equipment, including rechargeable batteries;

- Installed navigation and electronic equipment;

- Fire-fighting equipment;

- Furnishing equipment and interior elements;

.6 Deck equipment in which mass for all vessels the following is included:

- All permanently installed staffing or specific hull fittings and equipment such as railing and handrails, special platforms and cages, bowsprits and their equipment, platforms for swimming, boarding ladders, steering gear, winches, spray protection, cockpit equipment, deck plating, signal masts;

- Anchors, anchor chains and ropes;

- Removable Deck equipment such as fenders, ropes, painters.

For vessels with sailing equipment the mass of deck equipment also includes: masts, rigging, mast spinnaker and various sailyards, standing and running rigging, provided sails and storm sails.

.26.2 Products, equipment and other, which masses are not included in m_{LC}:

- Not fixed internal equipment, like cutlery, crockery, galley utensils, bed and galley linen;

- Not fixed electronic and navigation equipment (e.g. mate maps, etc .;

- Tools, spare parts;

- Additional (spare) sails;

- Life-saving equipment, including personal;

- Foodstuff and other supplies, if they are provided in the documentation of the ship;

- Bilge water;

- Sewage;

- Drinking water;

- Fuel and oil;

- Personal belongings;

- Life raft;

- Ship boat;

- Crew and passengers;

- The cargo carried if it is provided by the ship documentation.

.27 Ship perfomance trials mass, m_P

Ship perfomance trials mass includes all provided permanently installed equipment and products. In addition, the ship must be completed by all not permanently installed equipment and products needed for safe operation of the ship, such as:

- Cables;

- Anchors / chains / rigging;

- Working sails;

- Engine / motors;

- Batteries.

In addition, the following should be included into the mass:

- People in a quantity necessary for the safe testing of the ship;

- Fuels, at least 25% but not more than 50% of the capacity of fixed fuel tanks or other portable tank for each engine, which will be filled at least 50% before each test of the vessel;

- Life-saving and safety equipment for all people on board the vessel.

Ship perfomance trials mass, if they do not need during the test should not include the following masses:

- Freshwater;

- Sewage;

- Provisions and other supplies;

- Not fixed internal equipment, like cutlery, cookware, galley dishes, spare parts, etc.

.28 Maximum load (deadweight) , m_L (*DW*)

The term "maximum load" or "deadweight" should be understood as "recommended by the manufacturer value of the maximum load" determined based on accepted standards of stowage and cargo mass, kg: fuel, oil, water, provisions, different equipment and supply, people and their personal belongings, which are part of deadweight and for which the ship is designed.

Deadweight of the vessel should be defined and do not exceed the value of maximum load that can be added to the mass of the empty vessel , without violating the requirements for stability, freeboard and floodability, as defined in SC Rules considering the class of the ship or in the standards ISO 12217: considering the given ship project category and sailing conditions.

.28.1 Definitions.

- Seating area - place on the open part of the vessel or in a cockpit or in the premises of the vessel for sitting of each person with dimensions not less than 500 mm x 750 mm
- Ships of 2-5 coastal navigation areas (pursuant to SC Rules) and of design categories C and D (in accordance with Directive 2013/53 / EU and ISO 12217 :) deck area near the cockpit can be used for this purpose.
- Seats - any surface, horizontal or almost horizontal, where people can sit with minimum dimensions of 400 mm x 750 mm. It is recommended to take a seat width of 500 mm.

.28.2 Maximum number of persons, n_{max}.

The maximum number of people staying on the vessel at the time of operation shall not exceed:

.1 The number of people for which the ship meets the requirements for freeboard, stability and floodability, according to the requirements of SC Rules;

.2 Number of people for which seating area defined by the manufacturer with the sizes specified in .28.1.

.28.3 Deadweight composition.

At least part of the deadweight should include the following masses:

.1 The number of people under .28.2 weighing 75 kg each person. When the project envisages the presence of children on board, the above maximum number of people can be exceeded provided that the weight of each child is not more than 37.5 kg and the maximum permissible mass of people has not been exceeded;

.2 Main equipment of the vessel, defined as (LH -2,5), 2 kg, but not less than 10 kg;

.3 Supplies and cargo if it is provided by the documentation of the vessel, dry provisions, rare marine reserves (account materials, not specified in .28.3.5 or .28.3.4) and different equipment, not included in the light mass of the vessel or .28.3. 2;

.4 Contents of all stationary tanks filled to 95% of their maximum capacity, including liquid marine reserves (drinking water, fuel, oil), waste and sewage, hydraulic systems oil, water with bait and water ballast tanks at 100% of their capacity; .

.5 Liquid marine reserves (drinking water, fuel, oil) in portable tanks filled to 95% of their maximum capacity;

.6 Life raft (rafts), including provided over those required safety standards, or the ship's lifeboat with its engine if they are provided by the documentation of the ship;

.7 Non-food supplies and equipment that are typically stored on board and are not included in the manufacturer of standard equipment, see .26.2 and .2 above, such as laptop internal machinery equipment, spare parts, tableware, kitchenware and cutlery, additional anchors and sails;

.8 Yachting life rafts in part provided in .6 in accordance with the calculation kg, within the value of (12 + 2nmax) to twice this value, in accordance with the specification;

.9 Personal belongings of people on living ships in accordance with the calculation of at least 20 kg per person;

.10 Reserve for the greatest mass for optional equipment and fittings that are not included by the manufacturer into the basic supply.

.28.4 The information in the Guidance for the owner of the vessel.

.1 The manufacturer should clearly specify in the owner Manual the maximum number of people under .28.3.1. If the vessel documentation provides the replacement of adult passenger by children under .28.3.1, any changes to the location of the seats, if required, should also be specified in the Guidance for the owner of the vessel.

.2 The manufacturer shall clearly specify in the Guidance for the owner the maximum load recommended by him according to .28.3. Listed in .28.3.1, .28.3.5 and .28.3.6 should be specified with a note that the maximum recommended deadweight includes only those products with indicating their common characteristics.

1.3.4.10.3

Ship loading conditions

1.3.4.10.3.1

Trial condition.

To determine the maximum speed and maneuverability characteristics of the vessel the ship must meet the ship mass specified in 1.3.4.10.2.27.

1.3.4.10.3.2

Ready to operation vessel load condition .

The ship is in a state ready for operation when she is fully equipped for a particular purpose with regard to the following:

- Completely filled fuel / lubricant tank;

- Completely filled tanks of fresh water;

- Filled with water bait tanks and living fish cages to their design values.

Liquid mass should be measured or calculated, taking into account the most useful volume of tank (tanks).

Masses of outboard engines and batteries must meet the largest rated power, for which the ship is designed.

1.3.4.10.3.3

Ready to operation vessel maximum load condition.

The vessel equipped and loaded according to 1.3.4.10.3.2 and further comprising:

- Mass of people (75kg each person, see. .28.3.1 Also) in maximum amount for which the ship is designed under their normal location in the cockpit in a sitting position;

- Mass of personal equipment of the main equipment of the vessel, defined as (LH -2,5), 2 kg, but not less than 10 kg;

- Mass of life-raft and / or boat if it is provided in the documentation of the ship. The designer / manufacturer should specify the appropriate mass and draft for this load condition of the vessel.

1.3.4.10.4

Permissible deviations from basic ship data

1.3.4.10.4.1

The published data.

Data are considered published if they are specified in the Guidance for the owner of the vessel or in printed specification or the other printed printed material that is used in the sale of the vessel.

Published data must be within these following tolerances specified in the table. 1.3.4.10.4.1.

1.3.4.10.4.2

Previous specification.

Previous specification of dimensions, displacement and mass should be identified by the corresponding term like "previous", "approximate", "estimated", "variable", etc. If applicable, the deviation values shall not exceed ± 3% for dimensions and ± 15% for mass, volume and tonnage.

Table 1.3.4.10.4.1 Tolerance for published data.

Published data	Tolerance[1], %
Linear dimensions of the vessel with rigid hull	±1
Linear dimensions of the vessel with inflatable hull	±2,5
Sail area	±5
Displacement	±10
Volumes	±5
Masses	±5
Speed[2]	±5

[1] Some critical values can affect the tolerances, such as the maximum breadth or the maximum mass for transportation on trailer. In these cases, tolerances upwards are not applied.

[2] The speed of the vessel with the load at performance trials under 1.3.4.10.2.27 unless other mass or load condition is stipulated specially.

1.3.4.11

Guidance for the owner

1.3.4.11.1

All small crafts must be provided with Guidance for the owner. This manual should provide all necessary information for the safe operation of the ship, her equipment and supply, gears, systems and environmental protection, focusing on preparations for the operation, maintenance, operating conditions, prevention of risky actions and risk management.

Information shall not include information on technical maintenance in addition to the usual regular checks intended to perform actions on manning of the vessel. Guidance may include a check-list that defines the procedure to be performed before the operation of the vessel.

Guidance should be made out in paper form, acceptable or necessary in the country of intended operation. Guidance should be made up in language(s) easily understood by consumers and end-users, as determined by the countries concerned, including which made sales of vessel and acceptable to the Register in their differences. Guidance can be multilingual.

If the Guidance contains more than four pages, it must contain indicating page numbers. Information can be presented in the form of text, symbols and icons.

Guidance for the owner may also be in electronic form if the following conditions are met:

Data editing protection is provided;

Guidance installed into the intended for this computer connected to the main and emergency power supply and always available for use in the operation of the vessel;

brightness of data view on a computer monitor should not interfere Watchkeeping at night;

the vessel is backed up with Guidance on other electronic media.

1.3.4.11.2

The following information, if applicable, should be reflected in the Guidance for the owner:

- Dimensions of the vessel;

- Dimensions of the hull;

- Draft (draft);

- Above-water clearance;

- The volume of reservoirs (tanks), including useful amounts and dead residue;

- Design sails area;

- Mass at speed trial (for motor vessels);

- The mass of the vessel for transportation on trailer (if applicable);

- Vessel light condition mass;

- Vessel load in fully ready for operation condition;

- Maximum load (deadweight).

The guidance also provides the necessary data from other parts of SC Rules.

1.3.4.12

The identification number and manufacturer's plate

1.3.4.12.1

General provisions.

The requirements of this section apply to pleasure crafts, built in the European Union (EU), as well as pleasure crafts, constructed in other countries, which are intended for use in the EU. The requirements of this section shall also apply to recreational crafts built outside the influence of EU regulations, and other types of small vessels under the scope of ISO 10087 :, ISO 14945 :, ISO 6185 and ISO 13590: in countries where national law provides for these standards ISO.

Small craft built on 1 December 2012 and after that date under the technical supervision of the Register should be marked with the identification number of the ship under 1.3.4.12.2.

Small craft built under the technical supervision of the Register should be provided with the stationary plate of the manufacturer in accordance with 1.3.4.12.3.

1.3.4.12.2

ID number.

Small craftshall be marked with the craft identification number (CIN), that in respect of the given vessel contains the following data:

.1 Country manufacturer code ;

.2 Manufacturer-specific code assigned by the national body of the country;

.3 Individual serial number;

.4 Month and year;

.5 Year model.

Small craft built in Ukraine under the technical supervision of the Register, must be marked with the identification number of craft, which relative to this ship contains the following data:

.1 Country manufacturer code - UA;

.2 The manufacturer's identification code as defined by the Register;

.3 Serial number of the craft;

.4 Code of the month of manufacture;

.5 Last digit of the year of manufacture;

.6 Year (last two digits of the planned year) of the model (the year when the craft is scheduled for selling).

The content of these data, taking into account the specified, and applying of permanent markings on the hull or on a plate, permanently fixed to the hull shall meet the requirements of ISO 10087: "Small crafts. Identification of the craft. The coding system ".

1.3.4.12.3

Manufacturer’s plate.

1.3.4.12.3.1

The small craft, including inflatable crafts of types IX IX on 10.1.3 of Part II of "Hull" SC Rules and standard ISO 6185-4: 2011 (on inflatable crafts of other types and water bikes, which are manufactured out of the action of the provisions of Directive 2013/53 / EU, see. 1.3.4.12.3.2) must be provided with stationary plate of the manufacturer mounted separately from the identification number of the craft (see 1.3.4.12.2) containing the following information:

.1 Manufacturer's name, registered trade name or registered trade mark, with contact address;

.2 Marking "CE" for vehicles with a document confirmation in accordance with 3.4.2 (marking "EC" in accordance with the basic principles of Regulation (CE) № 765/2008 (Annex II) and Article 18 of Directive 2013/53 / EU with the Register identification number as Notified Body (if it is involved in the production control stage or assessment after manufacturing)[3];

.3 Design category / categories of vessel (if defined) and area of navigation[1];

.4 Maximum loads[2] recommended by the manufacturer, including the mass of outboard engine / engines (for vessels equipped with an outboard engine / motor) and excluding the mass of fuel and water tanks when filled (denoted with symbols "man", "suitcase" and outboard engine symbol) ;

.5 Maximum number of persons[2], for transportation of which the ship is designed, according to 1.3.4.10.2.28.2 (denoted with the symbol "man").

The manufacturer's plate must meet the requirements of ISO 14945: "Small crafts. Manufacturer's plate. "

1.3.4.12.3.2

Inflatable small craft of types I-VIII on 10.1.3 of Part II of "Hull" of SC Rules and standards of series ISO 6185 and water bike manufactured outside the action of the provisions of Directive 2013/53 / EU, should be provided with a stationary plate of the manufacturer mounted separately from the identification vessel numbers (see. 1.3.4.12.2) that meets the requirements of standards ISO 6185, and, for water bikes, ISO 13590, and in accordance with these standards includes the following data:

.1 For inflatable crafts number of corresponding part of ISO 6185 and the type to which the ship belongs;

.2 Name of the manufacturer or importer and the country of origin;

.3 Design category/categories of the vessel (if determined) and area of navigation[1];

.4 For inflatable boats maximum engine power, kW (denoted by the symbol outboard engine);

.5 Maximum number of persons[2], for transportation of which the ship is designed , including for inflatable boats 6.9.3 of IV «Stability, floodability and freeboard" of SC Rules (denoted with the symbol "man");

.6 Maximum load[2] which the craft may accept specified by the manufacturer, taking into account, for inflatable boats 6.9.6 Part IV «Stability, floodability and freeboard" of SC Rules (denoted with symbols "man", "suitcase" and outboard engine symbol)

.7 For inflatable boats recommended working pressure of inflatable hull (denoted by the symbol of pressure);

.8 Maximum sail area if the rig provided (indicated with the symbol of a sailing vessel).

Notes to 1.3.4.12.3.1 i 1.3.4.12.3.2.

[1] Project category of the craft is indicated for recreational crafts built in the EU, as well as for recreational crafts built in other countries, intended for use in the EU and for ships built outside the influence of

regulations of the EU, for which the design category of crafts is determined under the standard ISO 14945. For these and other small crafts, classified in accordance with the requirements of Sc Rules, are indicate (via a fraction, if any project category is assigned) assigned signs of navigation area and sailing restrictions in accordance with 2.2.5.7, for example: M (unrestricted navigation area), **MR1, MR2, ПМ1** or **П31, ПР1** or whether these signs with sign sailing restrictions: **2, 3, 4 or 5**.

[2] If the manufacturer assigns to ship more than one project category (for one navigation area), the display should be such that the maximum number of people and the greatest load are clearly identified for the particular project category (specific navigation area).

[3] Marking "CE" is indicated for recreational vessels built in the EU, as well as for recreational vehicles built in other countries, intended for use in the EU. Register ID number as Notified Body, is applied solely by theRegister in accordance with the requirements or by the manufacturerof the craft or his authorized representative or before the commissioning of the ship by the importer or the shipowner, if the manufacturer did not make an appropriate assessment and marking of the vessel.

1.3.4.12.3.3

The plate of the manufacturer should be made as a solid plate or a flexible label and fixed to the hull in a manner that excludes the possibility of its removal without tools. Alternatively, the hull may be used for the application of manufacturer's information in the absence of reduction of the regulated sizes of the structure.

1.3.4.12.3.4

Graphical symbols used for application on the manufacturer's plate must meet the recommended standards of ISO 7000 "Graphical symbols for use on equipment. Characters of registration "and ISO 11192" Small crafts. Graphical symbols. "

Signs and other markings on the manufacturer's plate Manufacturer's plate be applied by the cutter, method of etching, engraving, burning, relief method using a stencil or printed by permanent plastic covering or other suitable means. As an alternative, graphical symbols Manufacturer's plate may be printed or engraved directly on the ship's hull. Signs should be clear, contrasting well recognizable on the main backdrop.

Paints used for labeling the plate must be resistant to fading.

Mandatory information shall be marked with signs of a minimum height of 5 mm. Additional information is put with signs of at least 3 mm.

The icons and characters must be of a minimum height of 8 mm.

1.3.4.12.3.5

Manufacturer's plate should be located in easily accessible, visible place, mainly in the cockpit or at the main steering station.

1.3.4.12.3.6

Manufacturer's plate may contain additional information. Application of additional information should not be carried out at the cost of the required information, it is advisable to separate it from the required information with the line of the or otherwise.

1.3.4.13

Assignment of navigation area and hydrometeorology

1.3.4.13.1

Assignment of navigation area to a small craft

1.3.4.13.1.1

Assignment of navigation area should be carried out taking into account the following basic structural features of a small craft:

.1 Structural type (sailing, motor, inflatable, decked, гтвуслув, et c.);

.2 Material, design and hull strength;

.3 Main dimensions;

.4 Stability, freeboard, floodability;

.5 Propulsive units power (for motor crafts and boats);

.6 Secured autonomy and range of navigation;

.7 Established radio navigation equipment;

.8 Life-saving appliances;

.9 Fire protection;

.10 Speed to placeb of shelter in conditions of assigned navigating area.

1.3.4.13.1.2

A vessel, depending on the design features mentioned in 1.3.4.13.1.1.1 - 1.3.4.13.1.1.3 1.3.4.13.1.1.5 may be assigned navigation area accordance with designations of tables 1.3 .4.13.1-1, 1.3.4.13.1-2, 1.3.4.13.1-3 and 1.3.4.13.1-4.

1.3.4.13.1.3

A vessel, to which navigation area is assigned according to 1.3.4.13.1.2, must meet the applicable requirements of the relevant parts of SC Rules taking into account design features mentioned in 1.3.4.13.1.1.

1.3.4.13.1.4

Navigation area, subject to set out in section 1.3.4.13.2 is determined by the maximum allowed for vessel, boat or craft distance from shore and place of shelter with limitation on sailing downwind and waving, including the waving caused by navigation.

1.3.4.13.2

Hydrometeorology for small crafts

1.3.4.13.2.1

General

1.3.4.13.2.1.1

Principles of meteorology for small vessels, in addition to the above in 1.2.3 of Part I "Classification" of Rules are based on the following provisions:

- Height of the vessel's windage center position on calm water above the waterline with minimum deadweight for small vessels in operation is theoretically possible within 0.2 m ≤ $Z_П$ ≤ 10,0 m;

- Wind pressure for small vessels will be determined according to 1.2.3.4 taking into account the height of the vessel's windage center position above the waterline of the vessel, which is on top of the wave in relation to the permitted area of navigation;

- Small vehicles will be operated at waving with ratio of wave height h to its length λ less than 1.8 and will not be used on water area, where there are bumping, mouth waves or overturning waves in shallow water.

1.3.4.13.2.1.4

Specifications sea navigation areas are adopted pursuant to paragraph 2.2.5.1 of this part I «Classification" with a view of the 1.3.4.13.2.1.1.

1.3.4.13.2.1.5

Specifications of inland waterways are adopted pursuant to paragraph 2.2.5.6.2 of this part I «Classification"

1.3.5

SV, CNV, INV and SC Rules in coordination with the Register, may be used for classification of ships and floating structures, including unusual design, not listed in the paragraphs of this Part governing the distribution of specified Rules, especially with the establishment by the Register of the special scope of Rules application.

1.3.6

Rules define the requirements under which the vessel floating structure or vessel's refrigeration unit may be assigned a class of the Register.

1.3.7

Endorsement of compliance with the Regulations issued by the Register, is a prerogative of the Register and is exercised in accordance with the procedure established by the Register.

Any statement on compliance of the object with the requirements of the Rules made or documented by the organization other than the Register and which have no properly issued endorsement of the Register, may not serve as proof of such compliance.

Table 1.3.4.13.1-1 Assignment of navigation area to decked vessels.

Structural features						The applicable areas of operation							
Type of the vessel		Hull material	Specification characteristics		Main Engine power, *N*, kWt	Seas and oceans			Coastal navigation				
			symbol	value		**но**	**R1**	**R2**	**1**	**2**	**3**	**4**	**5**
Sailing	Mono hull and multi hull	Metals, plastics, wood and ferrocement	L_H	< 6							+	+	+
			L_H	> 6					+	+	+	+	+
			L_H	>8,5				+	+	+	+	+	+
		Metals, plastics	L_H	>15		+	+	+	+	+	+	+	+
Motor	Mono hull and multi hull	Metals, plastics, wood	L_H	< 6	*P* < 15						+	+	+
			L_H	> 6	*P* < 15						+	+	+
			L_H		*P* > 15					+	+	+	+
			L_H	> 8	*P* > 15					+	+	+	+
		Metals, plastics	L_H		*P* > 75			+	+	+	+	+	+
			L_H	> 15	*P* > 15					+	+	+	+
			L_H		*P* > 75			+	+	+	+	+	+
			L_H		*P* >150		+	+	+	+	+	+	+
Rowing	Multi hull	Metals, plastics, wood	L_H	< 6								**+**	**+**

Table 1.3.4.13.1-2 Assignment of navigation area to undecked vessels.

Structural features						**The applicable areas of operation**							
Type of the vessel		Hull material	Specification characteristics		Main Engine power	Seas and oceans			Coastal navigation				
			symbol	value		**ur**	**R1**	**R2**	**1**	**2**	**3**	**4**	**5**
Sailing	Mono hull and multi hull	Metal, plastic, wood	L_H	< 4								+	+
			L_H	4 - 6							+	+	+
			L_H	> 6						+	+	+	+
			L_H	> 8,5	P < 4,5					+	+	+	+
Motor	Mono hull and multi hull	Metal, plastic, wood	L_H	< 4	P < 15								+
			L_H	4 - 6	P > 15						+	+	+
			L_H		P > 15						+	+	+
			L_H	> 6	P > 75						+	+	+
			L_H								+	+	+
			L_H	> 15	P > 15						+	+	+
			L_H		P > 75					+	+	+	+
Rowing	Mono hull and multi hull	Metal, plastic, wood	L_H	< 4									+
			L_H	4 - 6								+	+
			L_H	> 6							+	+	+

Table 1.3.4.13.1-3 Assignment of navigation area to vessels with inflatable hulls.

Structural features							**The applicable areas of operation**							
Type of the vessel				Specification characteristics		Main Engine power, *N*, kWt	Seas and oceans			Coastal navigation				
				symbol	value		**ur**	**R1**	**R2**	**1**	**2**	**3**	**4**	**5**
Inflatable	Soft hull	Rowing	Type I	L_H	< 8	Without ME								+
		Sailing	Type IV	A_S	≤ 6	$P \le 4,5$								+
				L_H	< 8									
			Type VI	A_S	> 6	$P \le 4,5$							+	+
				L_H	< 8									
		Motor	Type II	L_H	< 8	$P \le 4,5$							+	+
			Type V	L_H	< 8	$4,5 < P \le 15$						+	+	+
			Type VII	L_H	< 8	$P \ge 15$							+	+
				$L_{max}xB_{max}$	≤ 8									
			Type VII	L_H	< 8							+	+	+
				$L_{max}xB_{max}$	>8									
	Rigid bottom, motor		Type VIII	L_H	<8	$P \ge 75$					+	+	+	+
			Type IX	$8 \le L_H < 24$		$P \ge 15$					+	+	+	+
			Type X	$8 \le L_H < 24$		$P \ge 75$				+	+	+	+	+
	Soft bottom, towed			L_H	≤ 8	Without ME						+	+	+

Table 1.3.4.13.1-4 Assignment of navigation area to frame-fabric vessels.

Structural features						**The applicable areas of operation**							
Type of the vessel			Specification characteristics		Main Engine power, *N*, kWt	Seas and oceans			Coastal navigation				
			symbol	value		**ur**	**R1**	**R2**	**1**	**2**	**3**	**4**	**5**
Frame-fabric	Rowing	mono hull	L_H	≤ 8	Without MI								+
	Sailing	mono hull	A_S	≤ 6	Without MI								+
		multi hull	A_S	≥ 6	Without MI						+	+	+
	Sailing-motor	multi hull	L_H	≤ 8	$P \leq 4,5$						+	+	+

2 SHIP'S CLASS

2.1 GENERAL

2.1.1

Assigning a ship class of the Register means endorsement by the Register for a fixed period compliance of the ship's construction with the applicable requirements of the Register and her technical condition - with the conditions of operation of the vessel, and the adoption of the vessel under the technical supervision of the Register over the ship in operation with carrying out all kinds of surveys prescribed by the Register's Rules for the survey of ships.

2.1.2

The Register may assign the class for the vessel upon the results of supervision during her construction, as well as assign or renew the class of the vessel in operation.

2.1.3

Class renewal of the vessel means confirmation by the Register of construction of the ship and her technical condition compliance with conditions, on which the class was previously assigned, and continuation of the Register documents for a specified by the rules period.

2.1.4

Class of the vessel is assigned or renewed by the Register as a rule for:

.1 Five years period for vessels classified according to the requirements of the SC Rules and CNV Rules;

.2 Six-year period for self-propelled vessels and eight-year period for non-propelled vessels, classified in accordance with the requirements of Regulation AMS;

.3 For ships classified in accordance with the requirements of INV Rules:

- for five-year period for motor and sailing vessels with metal hull of sea areas of navigation (with signs M MR1 and MR2, see. 2.2.5.7.1 and 2.2.5.7.2.1) and coastal areas 1 and 2 of navigation in the sea (with signs ПМ1, ПМ2, П31 and П32, see. 2.2.5.7.1 and 2.2.5.7.2.2) and for any vessels with no metal hull and ships with dynamic principles of support;
- for six-year period for motor and sailing vessels with metal hull of navigation areas other than specified for five year period, except for vessels with dynamic principles of support;
- for eight-year period for non-propelled, rowing and moored ships with a metal hull.

In certain cases the Register may assign or renew the class for the less period.

2.1.5

Valid ship's class of the Register means that the technical condition of the vessel in whole or in degree, recognized by the Register sufficient, meets the requirements of the Rules which apply to her according to her purpose, conditions and ship's class vehiclessymbol. Validity of the vessel's class is certified by the availability on the vessel of a valid Classification certificate.

The class of a small craft, classified in accordance with Sc Rules, is certified by the availability on the vessel of a valid Classification certificate for vessels:

- Entitled to navigate in the sea: self-propelled vessels with main engine capacity of 55kVt or more, except for water bikes and non-propelled vessels with a gross tonnage of 80 or more;
- Eligible only for internal (river) navigation, with hull lengths of 20m or more and, regardless of the length of the hull, fishing vessels and ferries;
- Engaged on international voyages or sailing under the flag of other countries.On other

vessels validity of the of the current class of the vessel is certified by the availability on the vessel of a valid certificate on the fitness of a small ship for navigation. On the floating dock or refuler pipeline, consisting of several small vessels (pontoons), permanently interconnected to be to used in accordance with their basic purpose, see also 1.3.4.8, is issued one certificate on the fitness of small ship for navigation, indicating the number and type of connected vessels.

2.1.6

Classification certificate expires and class validity is automatically suspended in the following cases:

- not providing a ship as a whole or her individual elements intended to periodic or occasional survey in the prescribed period (when the next survey is not completed or is not expected to complete it until the operation is resumed to a set date, if no annual survey has been completed within 3 (three) months from the established date of the annual survy and if an intermediate survey has not been completed within 3 (three) months from the established date of the third annual survey in each periodic cycle of surveys);
- if the ship is not provided to complete appropriate survey or unless otherwise provide in the Regulations of the Register;
- after emergency (vessel should be submitted to an occasional survey in the port, where an emergency took place, or the first port of call or upon the arrival of a small craft to the base (mooring place if an emergency took place on the way);
- changes of construction not approved by the Register and / or changes in the ship supply downward from the prescribed by the rules;
- repairs of ship's items without approval and / or supervision of the Register;
- operating of the vessels with a draft exceeding regulated by the Register for specific conditions and operation of the ship in conditions that do not meet the assigned class of the ship or restrictions established by the Register;
- untimely performance of prescribed specific requirements that were in the previous survey of the ship the condition of assignment or retaining of the Register's class;
- suspending on the initiative or fault of the shipowner the process of vessel's survey which is carried out by the Register;
- the vessel's put out of operation for a long (over three months) period or for a small craft for a period exceeding the date of the next periodic survey, to perform the requirements set by the Register (unless the ship repairs for these purposes or standing through for retaininging class);
- failure or improper performance by the owner / ship owner / operator obligations to the Register, including remuneration or fines.

The shipowner is specifically notified by the Register on the suspension of the ship's class and validity of Classification certificate or Certificate of fitness of a small ship for navigation.

Class of the ship may be suspended for a period not exceeding six months.

2.1.7

Suspended (as defined in 2.1.6) class of the vessels can be renewed upon satisfactory results of the appropriate periodical or occasional survey conducted by the Register upon providing the ship for survey. Thus, in case of the vessel's put out of operating for a long (over three months) period or for a small craft for a period exceeding the date of the next periodic survey, to perform Register's requirements, the volume of renewal survey is specifically established by the Register taking into account the age of the ship, her condition, her term of being out of operation and the circumstances of the ship's stand through during this period.

For the period of suspension of class to its renewal the vessel is deemed to have lost the class of the Register.

2.1.8

Class of the ship is withdrawn by the Register in the following cases:

.1 after the deadline of the maximum suspension class;

.2 when renewal of the class suspended as defined in 2.1.6, is considered by the Register and / or shipowner impossible;

.3 when a shipowner transfers a ship in the class of another classification body;

.4 at the request of the shipowner.

Withdrawal of the ship's class means the discontinuation of Classification certificate and the Certificate of fitness of a small craft for navigation validity.

2.1.9

Class of the vessel is canceled due to the loss of the ship or her written off.

2.1.10

By assigning the class the Register includes the ship, except small crafts, in the register book and excludes her when withdrawing or cancelling the class.

2.2 SHIP'S CLASS SYMBOL

Class assigned by the Register to a ship or a floating structure, consists of a main symbol and additional signs and verbal characteristics that define the structure and purpose of a ship or a floating construction.

Additional signs and verbal characteristics are added to the basic class symbol (if they are used) in the sequence set out in this chapter and in accordance with the relevant provisions on the class symbol of the Rules for classification and construction of specialized vessels specified in 1.3.1.2.

Additional signs established by this chapter do not establish the need to carry out the requirements of pats of Rules for classification and construction of vessels (SV Rules, CNV Rules, INV Rules, SC Rules) and reflect carry out of requirements established by the relevant parts of the Rules.

2.2.1

The main class symbol assigned by the Register to a vessel or a floating structure, consists of characters:

KM⊕, KM✦, (KM)✦ – for self-propelled vessels and floating structures, including small motor and sailing vessels;

KE⊕, KE✦, (KE)✦ – for non-propelled vessels and floating structures with onboard power plant with the total capacity of the primary engines of 100 kW or more, and small non-propelled, sailing, sailing and motor, rowing and motor and moored ships with onboard power plant with primary engine ;

K⊕, K✦, (K)✦ – for other non-propelled vessels and floating structures, including small sailing and rowing ships. In the case of reducing the period for which the class is assigned versus specified in 2.1.4 established shortened period is indicated in the main symbol of cthe lass after the signs KM, KE K for example, **KM2⊕**.

2.2.2

Depending on due to what rules and by what classification authority the ship or floating structure were surveyed, the main class symbol is set as follows:

.1 to vessels and floating structures, built by the rules and under the technical supervision of the Register and surveyed by the Register is assigned the class with the main symbol: **KM⊕,** or **KE ⊕,** or **K⊕** (see 2.2.1);

.2 to vessels and floating structures that are fully (or their hulls, or mechanical installation with the main mechanisms) built and / or manufactured according to the rules of another recognized by the Register classification authority and are surveyed by this classification authority in their construction and manufacturing, at their classification the Register assignes the class with the main symbol: **KM✦,** or **KE✦,** or **K✦** (see 2.2.1);

.3 to vessels and floating structures that are fully (or their hulls, or mechanical installation with the main mechanisms) built and / or manufactured without the supervision of a recognized by the Register classification authority or generally unsupervised by the classification authority, at their classification by the Register is assigned the class with the main symbol: **(KM)✦,** or **(KE)✦,** or **(K)✦** (see 2.2.1); to a vessel and a floating structure, which mechanical installation with the main mechanisms is made without the supervision of the classification authority, recognized by the Register or without the supervision of the classification body and the hull is constructed in acordance with the Rules of the Register or Rules of the recognized by the Register classification authority and is surveyed accordingly by the Register or this classification authority in their construction, the Register in the course of her classification assigns the class with the main symbol: **K (M)✦**.

.4 to vessels and floating structures, which by their design features in their reclassification may not be assigned the main class symbol of numbers specified in 2.2.2.2, may be assigned the class **KM✦, (KE✦, K ✦)**.

The stated is refered to cases of transfer of the vessels and floating structures in the class of the Register from the class of the recognized by the Register foreign classification society. The possibility of such a classification in each case is subject to special consideration by the Head Office of the Register.

2.2.3

Signs of ice reinforcement categories.

2.2.3.1

Signs of sea vessels ice strengthening categories are set for icebreakers and ice ships sailing under 2.2.3.1-2.2.3.7.

.1 Icebreaker - specialized vessels, designed to perform various types of icebreaking operations: conducting vessels in the ice, overcoming of ice bridges, laying the channel, towing performing of rescue operations. When performing icebreaking operations there are two major ice navigation modes: continuous work progress and raids.

.2 Ice navigation vessels - vessels designed to sail independently in ice, including the movement in fractures between ice, overcoming of joints in ice fields and areas with relatively thin solid ice or navigation in ice under icebreaker conduct.

.3 In regulation of ice navigation conditions the following definitions are used:

Density - a measure of ice continuity, which is characterized by the ratio of the area occupied by the ice to the total area of estimated water area (measured by ten-point scale);

Open pack ice - ice with density of 4-6 points, where most ice floes do not face each other;

Pack ice - ice with density of 7-8 points, where most ice floes collide with each other, forming ice bridges;

Very close pack ice - ice with density equal to 9 points or more, but less than 10 points;

Compacted ice - ice with density of 10 points.

2.2.3.2

If icebreaker meets the relevant requirements of the SV Rules, the main symbol is added with one of the main signs of ice strengthening categories: Icebreaker1; Icebreaker 2; Icebreaker 3; Icebreaker 4.

Ice-breakers of these groups have the following approximate operational characterisitics:

Icebreaker 1 - performing of icebreaking operations in port and off port waters and in non-arctic freezing seas with ice thickness to 1,5 m. May continuousely progress in the field of pack ice with thickness 1,0m;

Icebreaker 2 - performing of icebreaking operations: on the coastal routes of Arctic seas in winter-spring navigation with ice thickness to 2.0 m and summer-autumn navigation in ice with thickness up to 2.5 m; in non-arctic freezing seas and estuarine areas of rivers that flow into the Arctic sea - with ice thickness to 2.0 m. May continuousely progress in the field of pack ice with thickness up to 1.5 m. Total capacity for propeller shafts at least 11 MW;

Icebreaker 3 - performing of icebreaking operations: on the coastal routes of Arctic seas in winter-spring navigation in ice with thickness up to 3,0m and summer-autumn navigation - without restrictions. May continuousely progress in the field of pack ice with thickness up to 2.0 M. Total capacity for propeller shafts at least 22 MW;

Icebreaker 4 - perform icebreaking operations: at Arctic seas in winter and spring navigation when the thickness of ice is up to 4,0m and summer-autumn navigation - without restrictions. May continuousely progress in the field of pack ice with thickness more than 2.0 M. Total capacity for propeller shafts at least 48 MW.

2.2.3.3

Categories of ships of ice navigation.

.1 If the self-propelled vessel of ice navigation meets the relevant requirements of the SV Rules, the main class symbol is added with the one of the following signs of ice strengthening categories: Ice1, Ice2, Ice3, Ice 4, Ice5, Ice6. The basic class symbol of non-propelled vessel is added with the sign of ice reinforcement category

.2 Categories Ice1, Ice2, Ice3, forming a group non-arctic categories are applied to ships that are only for navigation in freezing non-arctic seas (non-arctic vessels).

.3 Categories Ice4, Ice5, Ice6, forming a group of Arctic categories are applied to vessels intended for navigation in Arctic seas (arctic vessels).

.4 For tugs, depending on their compliance with ice strengthening categories, one of the following signs: Ice2, Ice3, Ice4, Ice5 is attached to the main class symbol.

2.2.3.4

When selecting the Arctic ice categories of the vessels it is recommended to use averaged quantitative information about permissible operating areas and ice navigation conditions, which are shown in Table 2.2.3.4-1-2.2.3.4-3, while choosing ice strengthening of non-arctic ships - data on permissible ice navigation conditions ststed in table 2.2.3.4-4. The use of this information for the regulation of acceptable conditions of navigation of operated vessels is not allowed. It is assumed that during the operation the shipowner will be guided by the requirements of the ice passport or other document that specifies the conditions of safe operation of the ship in the ice category depng on the sign of ice strengthening, vessel design features, ice conditions and icebreaker support.

In table 2.2.3.4-1areas of operation of vessels in the Russian Arctic seas (Barents, Kara, Laptev Sea, East Siberian, Chukchi) are given depending on the season, tactics of ice navigation and type of navigation.

In the Table. 2.2.3.4-2 for ships of Arctic categories are specified maximum allowable type and thickness of the ice, where the vessel is able to sail in the channel after the icebreaker at low speed (3-5 knots) without obtaining increased risk of hull damage in the interaction with ice.

In table 2.2.3.4-3 for ships of Arctic categories operated in independent navigation mode is specified permissible speed, which the ship that is specified in the table of ice conditions may develop when navigating in ice fractures or between joints in ice fields with the help of raids, while not being exposed to an increased risk of obtaining damage as a result of interaction with ice.

2.2.3.5 Arctic vessel can carry out non-arctic navigation in freezing seas in ice conditions that comply with specified in tables 2.2.3.4-2 and 2.2.3.4-3.Таблиця

2.2.3.4-1. Areas and conditions of operation of vessels of Arctic categories

Categо-ry of ice strength-ening	Mode of ice navigation	winter-spring navigation in seas of					Summer-autumn navigation in seas of				
		Barents	Kara	Laptev	East Siberian	Chukchi	Barents	Kara	Laptev	East Siberian	Chukchi
		EHML	EHML	EHML	EHML	EHML	EHML	EHML	EHML	EHML	EHML
Ice4	IN	– – – +	– – – –	– – – –	– – – –	– – – –	+ + + +	– – + +	– – – +	– – – +	– – + +
	IA	**– ● + +**	– – – +	– – – –	– – – –	**– – – ●**	+ + + +	● + + +	– – + +	**– –** + +	**– ●** + +
Ice5	IN	– – + +	– – – +	– – – –	– – – –	– – – –	+ + + +	– + + +	– – + +	– – + +	– – + +
	IA	**● + + +**	**– – ●+**	– – – +	– – – +	**– – ● +**	+ + + +	● + + +	● + + +	● + + +	● + + +
Ice6	IN	+ + + +	– – + +	– – – +	– – – +	– – + +	+ + + +	+ + + +	+ + + +	+ + + +	+ + + +
	IA	+ + + +	+ + + +	●● + + +	● ● + + +	● + + +	+ + + +	+ + + +	+ + + +	+ + + +	+ + + +

Conventional signs :
IN – independent navigation;
IA – icebreaker assistance;
+ – operation is alowed;
– – operation is not alowed;
● – operation with an increased risk of damage ;
E – extreme navigation (with an average recurrence once in 10 years);
H, M, L – heavy, medium, light navigation respectively (with an average recurrence once in 3 years).
Notes: 1 For vessels with ice reinforcement category **Ice6** is allowed indpendent navigation (IN) continuous navigation in the southwestern part of the Kara Sea in the types of navigation E, H, M, L.

Table 2.2.3.4-2 Permissible type and thickness of ice

Ship's category	Permissible type and thickness of ice	
	Winter-spring navigation	Summer-autumn navigatipon
Ice4	Thin first-year	Medium first-year up to 0,9m
Ice5	Medium first-year up to 0,8m	Medium first-year
Ice6	Thick first-year up to1,8m	Second-year

Note: Classification of ice is adopted in accordance with «Sea Ice Nomenclature» of the World Meteorological Organization (WMO):

Ice typeIce thickness

Second-year >2,0m

Thick first-year >1,2m

Medium first-year 0,7–1,2m

Thin first-year <0,7m

Table 2.2.3.4-3 Permissible speed and ice navigation conditions

Ship's category	Permissible speed, knots	Density and type of ice	Ice thickness, m		Ways to overcome ice bridges
			Winter-spring navigation	Summer-autumn navigatipon	
Ice4	6 – 8	Open pack first-year ice	0,6	0,8	Overcoming of ice fields ridges by continuous progress
Ice5		Open pack first-year ice	0,8	1,0	
Ice6		pack first-year ice	1,4	1,7	Overcoming of ice fields ridges by periodic work raids

Table 2.2.3.4-4 Permissible conditions of ice navigation

Ship's category	Permissible Ice thickness, m		Character of operation
	Indepemdent navigation in ice cake open pack with speed up to 5 knots	Navigation in the canal after the icebreaker in pack ice at a speed of 3 knots	
Ice1	0,40	0,35	Occasionally
Ice2	0,55	0,50	Regularly
Ice3	0,70	0,65	Regularly

2.2.3.6

Table 2.2.3.6 shows the approximate matching of signs of ice strengthening categories of these SV Rules 2011 edition of the Shipping Register of Ukraine (SRU) with the Russian Maritime Register of Shipping (RMRS) 1999 edition and the Rules of previous editions of the Shipping Register of Ukraine. The provisions of 2.2.3.4 and 2.2.3.5 shall not apply to ships built under the requirements of the Rules of previous editions until 2003.

For these categories of vessels signs of ice strengthening categories according to the requirements of the SV Rules can be applied only at the request of the ship owner and only after verification of the hull compliance with the applicable requirements of 3.10 or 3.11 of Part II "Hull".

Table 2.2.3.6 Compliance of signs of ice strengthening categories

SRU Rules	RMRS Rules	Previous editions	SRU Rules	RMRS Rules	Previous editions
Icebreakers			Vesels of ice navigation		
Icebreaker1	ЛЛ6	ЛК1/ЛЛ4	Ice1	ЛУ1	ЛП1/Л4
Icebraker2	ЛЛ7	ЛК2/ЛЛ3	Ice2	ЛУ2	ЛП2/Л3
Icebreaker3	ЛЛ8	ЛК3/ЛЛ2	Ice3	ЛУ3	ЛП3/Л2
Icebreaker4	ЛЛ9	ЛК4/ЛЛ1	Ice 4	ЛУ4	ЛП4/Л1
			Ice5	ЛУ5	ЛП5/УЛ
			Ice6	ЛУ7	ЛП6/УЛА

2.2.3.7

Sign of the ice reinforcement of a mixed river-sea navigation vessel

2.2.3.7.1

If the vessel of mixed navigation has ice strengthening, satisfying the requirements of the relevant parts of the MNV Rules, sign Ice is added to class symbol.

If ice strengthening is provided for ice thickness other than regulated in 3.11 of the part II «Hull" of MNV Rules, the class formula is added with the thickness of broken ice in centimeters, at which operation of the vessel in ice conditions is permitted, such as Ice20.

2.2.3.7.2

If a vessel of mixed navigation has ice reinforcement that meet the higher requirements of SV Rules, then the class symbol is added with the corresponding sign specified in 2.2.3.3 of this part of the Rules.

2.2.3.8

Inland navigation vessel ice strengthening sign.

2.2.3.8.1

If inland navigation vessel has ice strengthening, satisfying the requirements of the relevant parts of the INV Rules the class symbol is added with the sign Лід.

If ice strengthening is provided for ice thickness other than regulated in 3.6 of the part II «Hull" of INV Rules, the class formula is added with the thickness of broken ice in centimeters, at which operation of the vessel in ice conditions is permitted, such as Лід20.

2.2.3.8.2

For icebreakers of inland navigation, satisfying the requirements of the relevant parts of the INV Rules to a class symbol after navigation area sign is attached sign Криголам.

The class formula is with ice thickness in centimeters, established pursuant to ice strengthening regulated in 3.6 part II «Hull» of INV Rules, at which the operation of the vessels in ice conditions is allowed, such as Криголам 70.

2.2.3.8.3

If inland navigation vessel has ice reinforcement that meet the higher requirements of SV Rules, then the following sign, referred to in 2.2.3.3 of this Regulation, is added to the class symbol after navigation area.

2.2.3.9

Small craft ice strengthening sign

If a small craft has special ice reinforcement, satisfying the requirements of the SC or INV Rules, the main class symbol is attached sign Лід, after which thickness of broken ice in cm at which operation of the craft is permitted is recorded in the class formula, for example Лід10 or Лід20.

2.2.3.10

The need for the availability of ice strengthening of the vessel is determined by the shipowner based on the anticipated conditions of operation followed by carry out of the applicable requirements of the Rules of the Register.

2.2.4

Signs of division into compartments.

2.2.4.1

For sea vessels that comply with the applicable requirements of Part V «Division into compartments" of SV Rules and fully meet the requirements of section 2 of the specified part on probabilistic assessment of

division of the ship into compartments, the main class symbol is added with sign **R** with the addition to it of a value (number tenth and hundredth) of the required index of division into compartments, for example, **R68** - for required index of division into compartments 0.68.

For sea vessels that comply with the applicable requirements of Part V «Division into compartments" SV Rules and fully meet the requirements of section 3 of the specified parts in case of flooding of one of any, or any two or three adjacent compartments throughout the length of the vessel at calculated damage of the side specified in 3.2, the main class symbol of is attached with the sign of division into compartments 1 , 2 or 3 respectively.

2.2.4.2

If the vessel of mixed navigation remains afloat in a satisfactory state of balance at flooding of one or any two or three adjacent compartments in accordance with Part IV «Stability, division into compartments and freeboard" MNV Rules, then the main class symbol is added with the sign 1 , 2 or 3 respectively.

2.2.4.3 2

If the vessel of inland navigation remains afloat in a satisfactory state of balance at flooding of one or any two compartments in accordance with Part IV «Stability, division into compartments and freeboard" INV Rules, then the main class symbol is added with the sign 1 or 2 respectively.

2.2.4.4

If a small craft which floodability is ensured by division of the hull into watertight compartments remain afloat in a satisfactory state of balance in flooding of any one or more adjacent compartments in accordance with Part IV «Stability, floodability and freeboard" of SC Rules, then the main class symbol of the craft is added with the sign 1 or the same sign with appropriate number indicating the number of adjacent compartments during flooding of which the craft fully satisfies the requirements of the emergency flooding and stability.

For crafts, which flodability is provided by buoyancy elements or their combination with the hull division into watertight compartments in accordance with Part IV «Stability, floodability and freeboard" SC Rules signs 0 або H are indicated respectively.

2.2.5

Signs of navigation area restriction.

2.2.5.1

Sea vessels and vessels of mixed (sea-river) navigation that meet the requirements of the SV Rules applied to vessels intended for use only in restricted areas of navigation, the main class symbol is added with one of the following signs that point at restrictions appropriate to each sign :

.1 R1 - navigation in sea areas in rough sea with wave height with 3% provided 8,5m, with distance from place of shelter not more than 200 miles and allowable distance between shelter places not more than 400 miles;

.2 R2 - navigation in sea areas in rough sea with wave height with 3% provided 7,0m, with distance from place of shelter not more than 100 miles and allowable distance between shelter places not more than 200 miles;

.3 R2-S - sea and **R2-RS** mixed (sea-river) navigation in rough seas with wave height with 3% provided 6,0m, with distance from the place of shelter:

in open seas up to 50 miles and allowable distance between shelter places not more than 100 miles;

in enclosed seas not more than 100 miles and allowable distance between shelter places not more than 200 miles.

For vessels with these signs of restriction of navigation area, on agreement with the Register may be assigned special restrictions on wave height 3% provided within 6,0m to 4,5m with indication after the sign

of the set wave height, such as: **R2-S (5.0)** , **R2-RS (4.5)**.

Navigation areas of the vessel of mixed (sea-river) navigation with sign **R2-RS** comply under Chapter 20V of Resolution №61 UNECE with zones **RS 6,0** with restricted sailing in rough seas with wave height of 3% provided to 6,0m and **RS 4.5** with set sailing restrictions when sailing on rough seas with wave height of 3% provided to 4,5m;

.4 R3-S - sea and **R3-RS** - mixed (sea-river) navigation in rough seas with wave height of 3% provided 3,5m, taking into account the specific constraints caused by wind-wave modes of areas, with maximum established distance from the place of shelter, which must not exceed 50 miles.

Navigation areas of the vessel of mixed (sea-river) navigation with sign **R3-RS** comply under Chapter 20V of Resolution №61 UNECE with zone **RS 3,5** with restricted sailing in rough seas with wave height of 3% provided to 3,5m and geographical and seasonal restrictions and conditions of maritime navigation according to Table 2.2.5.3-1 for sign **R3-S**;

.5 For passenger sea and mixed (river-sea) navigation ships engaged on domestic voyages, except vessels, to which according to 2.6.1.1.2 of "General provisions on technical supervision activities", Directive 2009/45 / EC is not applied the following signs and restrictions appropriate to each sign are established:

.5.1 A – navigation outside the area of navigation of vessels inwith area restriction **B-R3-S**, **C-R3-S** and **D-R3-S** without additional limiting restrictions and restrictions of wave mode -unlimited navigation area;

.5.2 A-R1- navigation in conditions with waves height up to 3% -provided 8,5m outside the area of navigation of vessels with area restrictions **B-R3-S**, **C-R3-S** and **D-R3-S**, with distance from shelter place not more than 200 miles and allowable distance between shelter places not more than 400 miles;

.5.3 A-R2 - navigation in conditions with waves height up to 3% provided 7,0m outside the area of navigation of vessels with area restrictions **B-R3-S**, **C-R3-S** and **D-R3-S**, with distance from shelter place not more than 100 miles and allowable distance between shelter places not more than 200 miles;

.5.4 A-R2-S - sea and **A-R2-RS** - mixed (sea-river) navigation in conditions with waves height up to 3% provided 6,0m outside the area of navigation of vessels with area restrictions **B-R3-S**, **C-R3-S** and **D-R3-S**, with distance from the place of shelter:

in open seas up to 50 miles and allowable distance between shelter places not more than 100 miles;

in enclosed seas not more than 100 miles and allowable distance between shelter places not more than 200 miles.

Navigation areas of a vessel of mixed (sea-river) navigation with sign **A-R2-RS** comply under Chapter 20V of Resolution №61 UNECE with area RS 6,0;

.5.5 B-R3-S - sea and **B-R3-RS** - mixed (sea-river) navigation in conditions with waves height up to 3% provided 3,5m or more (a specific wave height 6,0m may be set) in which the vessel is not moved off shore more than 20 miles, with the average height of the tide, where the person affected by the accident with the ship can land on the shore, and no more than 50 miles from the place of shelter.

Navigation areas of a vessel of mixed (sea-river) navigation with sign **B-R3-RS** comply under Chapter 20V Resolution №61 UNECE with area **RS 4,5** with restricted sailing in rough seas with wave height of 3% provided to 4,5m and area **RS 3,5** with restricted sailing in rough seas with wave height of 3% provided to 3,5m and establishment for both areas of the specified above distance from the coast and seasonal and geographical restrictions and conditions of sea navigation according to Table 2.2.5.3-2 for sign **B-R3-S**;

.5.6 C-R3-S – sea and C-R3-RS - mixed (sea-river) navigation in sea areas where the probability of exceeding (frequency) significant waves height of 2.5 m or waves of 3% provided with height 3,3m is less than 10% in one year period of the operation of the vessel throughout the year, or within a specified limited period of the year for operation exclusively in this period (e.g. summer operation period), in which the vessel is not moved off more than 15 miles from the place of shelter and no more than five miles from coastline, corresponding to the average height of the tide, where the person affected by the accident with the ship can land on the coast.

Navigation areas of the vessel of mixed (sea-river) navigation with sign **C-R3-RS** comply under Chapter 20V of Resolution №61 UNECE with area **RS 3,5** with restricted sailing in rough seas with wave height of 3% provided to 3,3m and area **RS 3,0** with restricted sailing in rough seas with wave height of 3% provided to 3,3m and establishing for both areas specified above distance from the coast and seasonal and geographical restrictions and conditions of sea navigation according to Table 2.2.5.3- 2 for sign **C-R3-S**;

.5.7 D-R3-S - sea and **D-R3-RS** - mixed (sea-river) navigation in sea areas where the probability of exceeding (frequency) significant wave height of 1.5 m or waves of 3% provided with height of 2, 0m is less than 10% over one-year period in the operation of the vessel throughout the year, or within a specified limited period of the year for operation exclusively in this period (e.g. summer operation period), in which the vessel is not moved off for more than 6 miles from the place of shelter and not more than 3 miles from the coastline, which corresponds to the average height of the tide, where the person affected by the accident with the ship can land on the coast.

Navigation areas of the vessel of mixed (sea-river) navigation with sign **D-R3-RS** comply under Chapter 20V of Resolution №61 UNECE with area **RS 2,0** with restricted sailing in rough seas with wave height of 3% provided to 2.0 m and establishing the specified above distance from the shore and seasonal and geographical restrictions and conditions of sea navigation according to Table 2.2.5.3-2 for sign **D-R3-S**.

For passenger ships with length less than 24m restricted navigation area **D-R3-S** or **D-R3-RS** is set, see 3.9.2.1 Part IV «Stability» SV Rules;

.6 R3 - sea and **R3-IN** - mixed (sea-river) navigation with limiting and seasonal restrictions and offshore and harbor navigation within the limits established by the Register in each case taking into account the conditions of wind-wave regime with probability (repeatability) sea rough with wave height 3 % provided 2.0 m less than 10% over one-year period in the operation of vessels throughout the year or within a specified limited period of the year for operation exclusively in this period.

Navigation areas of a vessel of mixed (sea-river) navigation with sign **R3-IN** comply under Chapter 20V of Resolution №61 UNECE restricted area, which is the area between the ports of a country in which the ship is allowed to navigate with the establishment, as described above, operating restrictions and performance of requirements of the SV Rules to vessels with the sign **R3-IN**.

Specific restrictions for floating cranes (carrying out of loading operations and navigation with the possible transport of cargo on deck and / or hold) are set by the Register in each case;

.7 Berth-connected ship – For ships outside Ukraine) -berth-connected vessels (indicating the coordinates of the place of mooring and geographic area of operation according to Fig. 4.3.3.6 of Part IV «Stability» of SV Rules.

2.2.5.2

Limitations provided in 2.2.5.1 determe allowable operating conditions of the vessel, due to her stability and strength that are listed in Classification certificate and a Certificate of seaworthiness.

2.2.5.3

Specific restrictions on the area and conditions of navigation at sea for vessels with signs restricting navigation area **R3-S** and **R3-RS** are set as a geographic name of areas or their parts indicating where appropriate the geographical boundaries of the area inside the area of navigation, restrictions on the distance from the place of shelter and operatinal restrictions by calendar terms, or as indicating a voyage between end ports. Thus for setting restrictions that take into account wind-wave regimes of sea areas are used data of the table 2.2.5.3-1 or data from provided for the Register backgrounds for ability to operate the ship within a certain area or in voyage, made by the method approved by the Register.

For passenger ships, which carry out domestic voyages, according to Article 4 paragraph 2 of Directive 2009/45 / EC, each flag State should establish and update, if necessary, a list of sea areas relating to its jurisdiction, limiting the area for year-round operation and where appropriate, areas with restriction of year period of operation of ships' classes, using the criteria area restriction set out in 2.2.5.1.5. Based on the specified list of sea areas restrictions of navigation areas and specific conditions depending on the sign of

the vessel stated in 2.2.5.1.5 are established.

In the absence of established as described above by the State flag of Ukraine, sea areas, for navigation of self-propelled passenger ships engaged on domestic voyages, depending on the sign in 2.2.5.1.5 are established navigation areas and geographical and seasonal restrictions listed in the table. 2.2.5.3-2.

Where within established areas there are parts of coastline, corresponding to the average height of the tide, where the person affected by the accident with the ship can not land on the shore, and at length this part over the double set distance of the vessel from the shoreline, these areas are excluded from navigation area of the ship.

Applying the criteria set out in 2.2.5.1.5 to restrict the areas, specified geographic and seasonal restrictions may be extended by the Register on the basis of approved by the Register background of such extension of the shipowner.

2.2.5.4

Regardless of the area of navigation for vessels, which stability does not comply with the requirements of Part IV «Stability» SV Rules established for vessels navigating to the north of the parallel of 66o30' north latitude and south of the parallel of 66o00' south latitude, and also in the winter time in Bering, Okhotsk seas and in the Tatar Strait or in winter or winter seasonal areas established by Sea Ships Load Line rules, the Register sets appropriate restrictions by making record in Classification certificate of inadmissibility of operation of the vessel in the above winter seasonal areas and waters.

Table 2.2.5.3-1. Geographical and seasonal restrictions of navigation

Area	Geographical restrictions	Period of the year
Azov Sea	Without restrictions	During the whole year
Black Sea	20-mile coastal area along the east, north and west coast from the port of Batumi to Bosporus	During the whole year
Marble Sea	Without restrictions from the Bosporus Strait to the Dardanelles	During the whole year
Aegean Sea	From Dardanelles straits to Karpathos and Kythira straits to the north of the parallel 36°N. Transit to Ionian Sea through the Gulf of Saronikos, Corinth Canal, Corinthian Gulf, Gulf of Patras.	During the whole year
Ionian Sea	20-mile coastal area along the east coast from Kithira Strait to Strait of Otranto. 20-mile coastal area along the eastern coast from the Gulf of Patras to the Strait of Otranto	March - November During the whole year
Adriatic Sea	To the South of 42°N latitude. 20-mile coastal area along the eastern and western coast with crossing the sea in the Strait of Otranto near the port of Brindisi (Bari port) - Port Bar and in the area of Cape San Francesco - island Lastovo. To the North of 42°N latitude. 40-mile coastal area with entering the ports of the West Coast	During the whole year
Mediterranean Sea	From Rhodes Strait within 20-mile coastal area to ports of Israeli with call to the port of the island of Cyprus	March - November
Baltic Sea	Without restrictions, including Botanical, Finnish and Riga bays, straits Sound, Great and Little Belt, Kattegat to the south of parallel 57° 45 'N	During the whole year
Baltic and North Sea	Skagerrak Strait to the east of line Cape Skagen - Oslo Fjord and south of the parallel 59° N, and along the coast of Sweden in the Straits Sekken and Single Fjord	March - September
White Sea	Onega, Dvina and Kandalaksha Bays, and the 20-mile coastal area to the south of the parallel 66° 45 'N.	May - October
Kara Sea	20-mile coastal area from Port Dickson to the river P'yasina 20-mile coastal area along the northern and western coast of the Yamal Peninsula, Gulf of Ob to the port of Harasavey through the Malygin Strait	July - September August - 15 October

Area	Geographical restrictions	Period of the year
Caspian Sea	To the north of the parallel 44° 30'N, and to the south of the parallel 44° 30'N within 20-mile coastal area along the east coast to the port of Turkmenbashi (port Bekdash) along the western coast to the port of Makhachkala and from the port of Baku to the port of Enzeli, while in the area of the Chess spit 39°50 'N and 50° 20' E to Kurynskaya spit 39° 00' N and 49° 44'E allowed distance from the shore to 25 miles; crossing the sea from the east coast at part Port Turkmenbashi (port Bekdash) - the southern end of Krasnovodsk Spit to the west in the area of the Chess spit[1]	March - November
Laptev Sea and East Siberian	20-mile coastal area from the mouth of the Yana River to the mouth of the Kolyma The coastal area within 6-15 meters isobath from the mouth of the Kolyma River to the port of Pevek	July 20 - September August - September, during the low and medium ice condition, which is defined by the position Ayonskiy ice massif
Persian Gulf (Arabian Sea)	The eastern part - from the Strait of Hormuz to the meridian 54°E; central part - the coastal area along the west coast in the area by bounded meridian 54°E, parallel 28°59 'N and a line connecting the islands of Abu Musa, Halul, El Harkus, Falayka; the northern part - off the parallel 28°59'N.	During the whole year
North Sea	Helholand Bay south off the parallel 54°02'N and east off the meridian 7°58'E. The coastal area of the bay oh Helholand in the band division along the East Frisian and the West Frisian Islands and then entering the ports of the southern coast to the port of Antwerp inclusive.	During the whole year March – October
Japanese and Okhotsk Sea	20-mile coastal area along the west coast from the port of Vladivostok to the bay of Preobrazheniya. Tatar Strait and Amur estuary off the line of Sovgavan port - port of Uglegorsk to the line Menshikov Cape - Cape Tamlavo	During the whole year June- October
1 For vessels with approved by the Register navigation area to the south of the port of Turkmenbashi (port Bekdash) within the 20-mile coastal area along the east coast to the ports of Iran, in the area from the peninsula Cheleken 39°26'N. and 52°40'E the southern part of the island Ohurchynskyy end point 38°40'N and 53°00'E counting 20-mile coastal area begins from the coast of Ohurchynskyy island.		

Table 2.2.5.3-2. Geographical and seasonal restrictions and conditions of navigation

Area	Geographical restrictions	Seasonal restrictions	Additional restrictions
Vessels with a length of 24m and more with signs of restriction B-R3-S and B-R3-RS			
Azov Sea	Not more than 20 miles from the coastline and not more than 50 miles from place of shelter	During the whole year	
Kerch Strait			
Black Sea	Not more than 20 miles off shoreline along the north and west coast of the Kerch Strait to the Starostambulsk mouth of the Danube river and not more than 50 miles from the place of shelter	During the whole year	
Vessels with a length of 24m and more with signs of restriction C-R3-S i C-R3-RS			
Azov Sea	Not more than 5 miles from the coastline and 15 miles from the place of shelter	During the whole year	
Kerch Strait			
Black Sea	Not more than 5 miles off shoreline along the north and west coast of the Kerch Strait to the Starostambulsk mouth of the Danube river and not more than 1510 miles from the place of shelter	During the whole year	

Area	Geographical restrictions	Seasonal restrictions	Additional restrictions
Vessels with signs of restriction D-R3-S i D-R3-RS			
Azov Sea	Not more than 3 miles from the coastline in the Gulf of Taganrog to the line Dolgaya spit - Berdyansk spit - p. Berdyansk and not more than 6 miles from the place of shelter	March-November	
	Not more than 3 miles from the shoreline along the north-west coast to the p. Henichesk	March-November	
	Not more than 3 miles from the coastline along the south-western and southern coast off the p. Henichesk to the Kerch Strait and less than 6 miles from the place of shelter	March - October	
Kerch Strait	Not more than 3 miles from the coastline to the north of a line running through the edge of Tuzla spit and not more than 6 miles from the place of shelter	March-November	
	Not more than 3 miles from the coastline to the south of a line running through the edge of Tuzla spit to the line connecting Cape Takil with coordinates 45º06'N, 36º35'E and Cape Panagia and not more than 6 miles from the place of shelter (restrictions on the area and the sailing conditions are set for a specific vessel and indicated in the Classification certificate)	April-November 20	At $h_{3\%}$ to 1,5m
Black Sea	Not more than 3 miles from the shoreline along the north and west coast off the p. Skadovs'k to Starostambulsk mouth of the Danube and less than 6 miles from the place of shelter	June-September	

2.2.5.5

Signs of area and conditions of navigation restriction forvessels of mixed navigation.

2.2.5.5.1

For ships of mixed (river-sea) navigation, which are classified in accordance with the MNV Rules, the main symbol in the class is attached with sign **B-R4-RS**, indicating that the operation of the vessel is allowed in coastal voyages in sea areas of navigation specified in the tables 2.2.5.5. 3-2 2.2.5.5.3-4 2.2.5.5.3-6 and in all areas of European inland waterways for inland navigation vessels listed in 2.2.5.6.2.4 of these Rules.

For vessels that comply with additional requirements to ships engaged on international voyages in (from) seaport located outside Ukraine, according to 1.3.2.4 (incl. 1.3.2.2), the main class symbol is added with sign **R4-RS** (without sign **B**, which indicates only the performance of cabotage voyagess in Black and Azov Seas), which indicates that the operation of vessel is allowed in international voyages in sea areas of navigation specified in the tables 2.2.5.5.3-1, and 2.2.5.5.3-3 2.2.5.5.3-5.

2.2.5.5.2

A symbol of class after the signs **RS** is added with one of respective navigation conditions restriction signs, depending on vessel's compliance with requirements of established by MNV Rules for the main area of operation of the vessel and wind-wave modes in areas of ship operation:

3.0 - ship meets the requirements for operation in rough seas with wave height at 3% provided to 3,0m. Sea areas of operation and seasonal restrictions are listed in the tables 2.2.5.5.3-1 and 2.2.5.5.3-2.

Navigation areas of mixed (river-sea) navigation vessel with this navigation conditions restriction sign 3.0 correspond in accordance with Chapter 20 V of Resolution №61 UNECE with area RS 3,0 with restricted navigation in rough seas with wave height at 3% provided to 3,0 m and establishing of geographic and seasonal restrictions specified in the tables 2.2.5.5.3-1 and 2.2.5.5.3-2;

2.5 - ship meets the requirements for operation in rough seas with wave height at 3% provided to 2.5m. Sea areas of operation and seasonal restrictions are shown in tables 2.2.5.5.3-3 and 2.2.5.5.3-4;

2.0 - ship meets the requirements for operation in rough seas with wave height of 3% provided to 2.0 m. Sea areas of operation and seasonal restrictions are shown in tables 2.2.5.5.3-5 and 2.2.5.5.3-6.

Navigation areas of mixed (river-sea) navigation vessel with this navigation conditions restriction sign 3.0 correspond in accordance with Chapter 20V of Resolution №61 UNECE with area RS 2,0 with restricted navigation in rough seas with wave height at 3% provided to 2,0 m and establishing of geographic and seasonal restrictions specified in the tables 2.2.5.5.3-5 and 2.2.5.5.3-6.

2.2.5.5.3

Operating Areas

MNV Rules provide operation of mixed (river-sea) navigation ships on European inland waterways in navigation Area 1 and areas of lower grades regardless of the vessel's class, established in accordance with the requirements of MNV Rules

Operation of mixed (river-sea) navigation vessels in inland seas can be carried out according to the class of the vessel and set areas and seasonal restrictions in sea areas:

Sea areas for vessels with the sign **R4-RS3,0**, in which their navigation in rough seas is allowed with wave height of 3% provided to 3,0 m and seasonal restrictions are shown in table 2.2.5.5.3-1;

Table 2.2.5.5.3-1. Sea areas for vessels with the sign R4-RS3,0.

Seas and areas	Geographical boundaries of the area	Seasonal restrictions	Other restrictions
Azov Sea	Without restrictions		
Kerch Strait	Without restrictions		
Black Sea	20-mile coastal area along the northern and western coast off the p. Sevastopol to Sulina mouth of the Danube	Without restrictions	
	10-mile coastal area around the Crimean Peninsula from the Kerch Strait to the p. Sevastopol	April-September	
	20-mile coastal area along the east coast of the Kerch Strait to the p. Novorossiysk	Without restrictions	
	20-mile coastal area along the northern and western coast from the Sulina mouth of the Danube to the p. Burgas	Without restrictions	Only for self-propelled cargo ships
	20-mile coastal area along the southern coast from p. Burgas to p. Zonguldak	April-October	
Bosporus Strait	Without restrictions		
Marble Sea	Without restrictions off the Bosporus Strait to the Dardanelles	Without restrictions	
Sea areas are listed in Tables **2.2.5.5.3-3** and **2.2.5.5.3- 5.**			

Sea areas for vessels with the sign **B-R4-RS3,0**, in which their navigation in rough seas is allowed with wave height of 3% provided to 3,0 m and seasonal restrictions are shown in table 2.2.5.5.3-2;

Table 2.2.5.5.3-1. Sea areas for vessels with the sign B-R4-RS3,0.

Seas and areas	Geographical boundaries of the area	Seasonal restrictions	Other restrictions
Azov Sea	The territorial waters of Ukraine		
Kerch Strait	The territorial waters of Ukraine		
Black Sea	20-mile coastal area along the northern and western coast off the p. Sevastopol to Sulina mouth of the Danube	Without restrictions	

Seas and areas	Geographical boundaries of the area	Seasonal restrictions	Other restrictions
	10-mile coastal area around the Crimean Peninsula from the Kerch Strait to the p. Sevastopol	April-September	

Sea areas for vessels with the sign **R4-RS2,5**, in which their navigation in rough seas is allowed with wave height of 3% provided to 2,5 m and seasonal restrictions are shown in table 2.2.5.5.3-3;

Table 2.2.5.5.3-3. Sea areas for vessels with the sign R4-RS2,5.

Seas and areas	Geographical boundaries of the area	Seasonal restrictions	Other restrictions
Azov Sea	Without restrictions	March - November	
Kerch Strait	North off the line passing through the edge of Tuzla spit	March - November	
	South off the line passing through the edge of Tuzla spit to the line connecting Cape Takil, anchorage with coordinates N 45º06'N, 36º33'E and Cape Panagia	April-November 20	
Black Sea	10-mile coastal area from Kerch strait to the p. Novorossiysk	April - October	
	10-mile coastal area around the Crimean Peninsula from the Strait of Kerch to the parallel 45ºN	April-September	
	20-mile coastal area in the north-western part to the north off 45ºN from the Kalamyt Gulf to the p. Illichivs'k	April - October	
	10-mile coastal area from the p. Illichivs'k to Sulynskiy mouth	April - October	
	20-mile coastal area along the western coast from the mouth of Sulyna to p. Burgas	April - October	Only for self-propelled cargo ships
Caspian	To the north off the parallel 44º30' N	March - November	
Baltic	Gulf of Finland to the east off the line point Pyaytenina - island Vihrund - island Moschny - p. Vyborg; Gulf of Riga	April-November	
	10-mile coastal area along the southern coast of the Gulf of Finland from the care of Pateynina to the Gulf of Rome through the Strait of Mukhu-Vyayn	April-November. At h3% to 2.0 m	Only for self-propelled cargo ships
Barents	Gulf of Pechora to the line to Chorna - island Hulyayevski Kishky - Cape Rosiyskiy zavorot; Haypudyrska Gulf to the south off the parallel 68º45' NN	July-September	
White	Onega Bay south off the line p. Kem - northern edge of Solovetsky Islands - island Zhyzhhynskyy	May-October	
	Dvina Bay south off the line island Zhyzhhinskyy - the north edge of Mudyuhskyy island;	May-October	Only for self-propelled cargo ships
		May-October. At h3% to 2.0 m	Only for non-self propelled cargo vessels and tugs
	4-mile coastal area around Zhyzhhynskyy island	May-October	
Kara	Gulf of Ob; Gydan and Yenisei Gulfs south off the line cape Poyolovo - the north edge of Shokalski island - the north edge of Sibiryakov island - island Dixon; 3-mile coastal area around Shokalski island	July-September	
Laptev and East - Siberian	From the p. Tiksi to the mouth of the Yana river and farther and 20-mile coastal area along the southern coast from the mouth of Yana river to the mouth of Colyma river	20th July - September	
Okhotsk	20-mile coastal area along the southeastern coast of the Gulf of Sakhalin from the cape of Tamlavo to the p. Moskalvo	June-October	
Okhotsk and Japan	Tatar Strait to the north off the line of Chihachov Bay - cape Uandi and Amur Liman to south off the line Menshikov Cape - Cape Tamlavo	June-October	
Sea areas, specified in table **2.2.5.5.3-5.**			nil

Sea areas for vessels with the sign **B-R4-RS2,5**, in which their navigation in rough seas is allowed with wave height of 3% provided to 2,5 m and seasonal restrictions are shown in table 2.2.5.5.3-4;

Table 2.2.5.5.3-4. Sea areas for vessels with the sign B-R4-RS2,5.

Seas and areas	Geographical boundaries of the area	Seasonal restrictions	Other restrictions
Azov	Territorial waters of Ukraine	March - November	
Kerch Strait	North off the line passing through the edge of Tuzla spit	March - November	
	South off the line passing through the edge of Tuzla spit to the line connecting Cape Takil, anchorage with coordinates N 45º06'N, 36º33'E and Cape Panagia	April-November 20	
Black	10-mile coastal area around the Crimean Peninsula from the Strait of Kerch to the parallel 45ºN	April-September	
	20-mile coastal area in the north-western part to the north off 45ºN from the Kalamyt Gulf to the p. Illichivs'k	April - October	
	10-mile coastal area from p. Illichivs'k to Starostambulsk mouth of the Danube river	April - October	

Sea areas for vessels with the sign **R4-RS2,0**, in which their navigation in rough seas is allowed with wave height of 3% provided to 2,0 m and seasonal restrictions are shown in table 2.2.5.5.3-5;

Table 2.2.5.5.3-5. Sea areas for vessels with the sign R4-RS2,0.

Seas and areas	Geographical boundaries of the area	Seasonal restrictions	Other restrictions
Azov Sea	Taganrog Bay to the line Spit Dovga - Berdyansk spit - p. Berdyansk and 20-mile coastal area along the east coast to the parallel 45º21'N,	March - November	
	20-mile coastal area along the northwest coast off the port of Berdyansk to the port of Henichesk	March - November	
	20-mile coastal area along the south-western and southern coast from the port of Henichesk to the Kerch Strait	March - October	
Kerch Strait	North off the line passing through the edge of Tuzla spit	March - November	
	South off a line passing through the edge of Tuzla spit to the line connecting Cape Takil with coordinates 45º06'N, 36º35'E and Cape Panagia and not more than 6 miles from the place of shelter (restrictions on the area and the sailing conditions are set for a specific vessel and indicated in the Classification certificate)	April-November 20	At $h_{3\%}$ to 1,5m
Black Sea	5-mile coastal area along the northwest coast off the port of Odessa to the Sulina mouth of the Danube river	March – October	
	5-mile coastal area along the northwest coast off the port of Odessa to the port of Skadovsk	March – October	
Baltic Sea	Gulf of Finland to the east off the line island Kotlin - port of Zelenogorsk and 10-mile coastal area from the port of Zelenogorsk to the port of Vyborg	May – October	
	5-mile coastal area of the Gulf of Riga from the mouth of the Daugava river to the mouth the Gauja river	April - October	At $h_{3\%}$ to 1,5m
Caspian Sea	North off the line Cape Siutkin Spit - south edge of the Tyuleniy island - point with coordinates 45ºN, 48º35'E - Parallel 45ºN; Mangyshlak Bay north off the parallel 44º45'N.	April - November	

Seas and areas	Geographical boundaries of the area	Seasonal restrictions	Other restrictions
	East off the line connecting point with coordinates 45ºN, 49º30'E with point 44º30'N, 50º15'E	April - November	Only for self-propelled cargo ships
		April - November	Only for non-self propelled cargo vessels and tugs

Sea areas for vessels with the sign **B-R4-RS2,0**, in which their navigation in rough seas is allowed with wave height of 3% provided to 2,0 m and seasonal restrictions are shown in table 2.2.5.5.3-6.

Table 2.2.5.5.3-6. Sea areas for vessels with the sign B-R4-RS2,0.

Seas and areas	Geographical boundaries of the area	Seasonal restrictions	Other restrictions
Azov Sea	Taganrog Bay to the line Spit Dovga - Berdyansk spit - p. Berdyansk	March - November	
	20-mile coastal area along the northwest coast off the port of Berdyansk to the port of Henichesk	March - November	
	20-mile coastal area along the south-western and southern coast from the port of Henichesk to the Kerch Strait	March - October	
Kerch Strait	North off the line passing through the edge of Tuzla spit	March - November	
	South off a line passing through the edge of Tuzla spit to the line connecting Cape Takil with coordinates 45º06'N, 36º35'E and Cape Panagia and not more than 6 miles from the place of shelter (restrictions on the area and the sailing conditions are set for a specific vessel and indicated in the Classification certificate)	April-November 20	At $h_{3\%}$ to 1,5m
Black Sea	5-mile coastal area along the northwest coast off the port of Odessa to the Sulina mouth of the Danube river	March - October	
	5-mile coastal area along the northwest coast off the port of Odessa to the port of Skadovsk	March - October	

2.2.5.6

Signs of navigation area and sailing areas of inland navigation vessels.

2.2.5.6.1

Signs of navigation area.

Depending on vessel's compliance with the requirements set by the INV Rules to the main operating area of the vessel, the main class symbol is added with one of the signs corresponding the area of navigation on inland waterways:

B1 - ship meets the requirements for operation in Area 1 and can be operated in areas 2, 3 and 4;

B2 - ship meets the requirements for operation in Area 2 and can be operated in areas 3 and 4;

B3 - ship meets the requirements for operation in Area 3, and can be operated in Area 4;

B4 - the ship meets the requirements for operation in Area 4

and in addition to these signs mark R - the ship has a certificate under the Convention on shipping on the Rhine.

2.2.5.6.2

Navigation areas.

2.2.5.6.2.1

Division of inland waterways into navigation areas 1, 2, 3 and 4 (see. 2.2.5.6.2.4) has been performed in accordance with the following provisions:

.1 Navigation area is determined by the maximum wave height at 5 percent provided:

Area 1 - waves up to 2.0 M;

Area 2 - waves up to 1,2m;

Area 3 - waves up to 0.6 m;

Area 4 - waves up to 0.3 M.

.2 Zone R - waterways listed in .1, which require the issuane of the Certificate in accordance with Article 22 of the revised Convention for the Navigation of the Rhine, using the wording of Article 22 in the version in force on the date of Directive 2006/87 / EC entry into force.

2.2.5.6.2.2

Class of the vessels operated continuously in a particular area shall comply with and be not lower than the corresponding Area.

2.2.5.6.2.3

The possibility of operating vessels in areas that correspond to a higher class, and the possibility and terms of ships' single voyages through higher grade areas are the subject of special consideration by the Register, taking into account: the duration of vessels operation in the area of higher grade, duration of voyage, class and type of vessel, her technical condition, compliance of equipment and construction with the requirements of the Rules.

In justified cases, the Register may require the shipowner to provide backgrounds and measures to guarantee the safety of vessels in the areas relevant to a higher grade.

2.2.5.6.2.4

Navigation areas

List of European inland waterways, geographically divided into areas 1, 2, 3 and 4 are listed in Appendix I of Recommendations annexed to Resolution №61 ECE UN with corrections and Annex I of the Directive of the European Parliament and of the Council 2006/87 / EC as amended. In this paragraph only relevant areas of inland waterways of Ukraine are specified.

AREA 1

UKRAINE

Dnieper-Buh estuary: to the port of Ochakov.

Southern Buh: following the Mykolaiiv seaport.

Kakhovka reservoir: from the dam of Kakhovka HEP to the wharf of Bilen'ke (180 km).

Kremenchuh reservoir: from the dam of the Kremenchuh HEP to the village of Topylivka (70 km).

AREA 2

UKRAINE

Dnieper: below the port of Kyiv (except in areas classified as Area 1) and the section from the wharf Teremki to the dam Towers Kiev hydroelectric station.

Pripyat: below the wraf Vydumka.

Southern Buh: from the village Ternovate to Mykolaiv seaport.

Dniester estuary.

Dniester reservoir: from the dam to the village Dnistrovka (60 km).

Kakhovka reservoir: above the wraf of Bilen'ke (180 km).

Dnipro reservoir.

Kremenchuh Reservoir: above the village Topylovka (70 km).

Dniprodzerzhinsky reservoir.

Kanev Reservoir: from the dam of Kaniv HEP to the wharf Novo Ukrainka.

Kiev reservoir: from the dam of the Kiev HEP to the wharf Teremky on the Dnipro and to wraf Vydumka on the Prypyat.

Pechenizhske reservoir.

Krasnooskolske reservoir.

Burshtyn reservoir.

Lake Svityaz.

AREA 3

UKRAINE

Dnipro: above the wraf Teremky and part from the port of Kyiv to the dam of Kyiv HEP and the horn Staryi Dnipro (behind the island of Khortytsya).

Pripyat: above wraf Vydumka.

Desna and other horns of the Dnipro.

Southern Bug, above the village Ternovate.

Dniester, above the village Dnistrovka.

The Danube.

Ladyzhynsk reservoir.

Dniester reservoir: from the village Dnistrovka (60 km from the dam) to the village Vilhovtsi (190 km from the dam).

Other navigable waterways not assigned to areas 1 and 2.

AREA 4

UKRAINE

All other (non-navigable and those not classified) inland waterways are not assigned to areas 1, 2 and 3.

2.2.5.6.2.5

Areas with sea navigation mode

On the part of specified in 2.2.5.6.2.4 areas of navigation countiries administrations establish mouth areas with sea navigation mode.

In Ukraine, these areas are:

AREA 1

Southern Buh River from Mykolayiv sea port to the mouth. Dnieper-Buh estuary: to the port of Ochakov.

AREA 2

The Dnieper River from the city of Kherson (Kherson cannery plant) to the mouth.

River Southern Bug from the parallel 46º59'8'', passing to the east of the village Varvarivka to the Mykolayiv seaport.

AREA 3

The Danube.

2.2.5.7

Signs of area and navigation restrictions of small crafts

2.2.5.7.1

Signs of navigation area

Sea navigation area, see 2.2.5.7.2.1 – in class symbol is marked with sign **М**.

Coastal navigation area **-** in a class symbol is marked with the sign **П**, which is indicated in a composition of signs **ПМ, ПР** or **ПЗ**. Thus navigation area only within coastal sea is indicated with the sign **ПМ** and navigation area only on inland waterways (see 2.2.5.6.2.4) - with the sign **ПР**.

Coastal mixed navigation area (both at sea and on inland waterways) – in class symbol is indicated with the sign **ПЗ**.

2.2.5.7.2

Signs of navigation restrictions

Signs of navigation restrictions are specified in the symbol of class with the introduction of additional restrictions on wind-wave regime of navigation, seasonal area and distance from the shore or place of shelter.

2.2.5.7.2.1

Signs of navigation restrictions in the sea area

Unrestricted sea area of navigation – navigation restriction sign is not recorded into the class symbol.

1st and 2nd sea navigation areas – in the class symbol accordingly with signs **R1** and **R2**.

Characteristics of sea navigation areas are specified in 2.2.5.7.3.

2.2.5.7.2.2

Signs of navigation restrictions in the coastal and coastal mixed areas

1 coastal navigation area - is indicated in the class symbol with arabic numeral **1**. For this coastal area in the class symbol may be additionally specified restriction on wave height, which is indicated in parentheses after the area sign, for example **(4.0)**. Restrictions on wave height are recorded in the symbol of class if the ship is allowed navigation in rough seas with waves at 3% provided less than 6,0m ; but may not be assigned wave height at 3% provided less than 3,5m.

2 or 3 or 4 or 5 coastal navigation area - are indicated in the class symbol with arabic numerals **2** or **3** or **4** or **5** respectively.

Characteristics of sea navigation areas are specified in 2.2.5.7.3.

2.2.5.7.2.3

If a small craft of mixed navigation (sign **ПЗ**) complies with the requirements of INV Rules (L_H,*x* B_H *x T* is 100m³ and more), then with the sign of area and navigation restrictions of a small craft navigation area sign is indicated as for inland navigation vessel according to 2.2.5.6.1 of this part of the Rules, for example: $\frac{\text{П31}}{\text{B1}}$. Similarly are indicated signs for the small vessel of sea navigation area that meets the requirements of the INV Rules for navigation on inland waterways, for example: $\frac{\text{R1}}{\text{B1}}$.

2.2.5.7.2.4

If a small craft of river navigation (sign ПР) meets the requirements of the INV Rules see 1.3.4.4 (small vessel except ferries with length of 20 meters or more, intended for navigation on inland waterways in the European community, including river Danube in Ukraine), then with the sign of area and navigation

restrictions of a small vessel is indicated a sign of navigation area as for the vessel of inland navigation in accordance with 2.2.5.6.1 of this part of the Rules, for example: $\frac{\text{ПР2}}{\text{В2}}$.

2.2.5.7.3.

Navigation areas

2.2.5.7.3.1

General

.1 Sea navigation areas and their characteristics are adopted in accordance with 2.2.5.1 taking into account adopted in 1.3.4.13.2 of this part of the Rules.

.2 For coastal navigation in the seas, inland waterways and on waters and waters not related to waterways, taking into account adopted in 1.3.4.13.2 are established areas 1, 2, 3, 4 and 5 (see 2.2.5.7.3.3) in accordance with the following provisions:

.2.1 Areas of coastal navigation are assigned with characteristics depending on the effects of wind and the formation of the typical waving.

Wherein are considered waters that are regarded as deep in respect of wave height (depth of waters more than 10-15 times the height of the waves), in which the formation of destructive and counter (broken water) waves is not observed.

1st coastal region is considered under the influence of wind from the open water area, that is not protected by shore.

Coastal areas 2 - 5 are considered under the influence of wind from the coast to open waters, or under the influence of wind on water area protected by shores closely located around;

.2.2 Wind-wave characteristics of coastal navigation areas is adopted on the basis of assigning restrictions for navigation in open waters and the characteristics of possible waving in limited protected waters.

The area is defined by the maximum allowed for the ship or craft distance from the coastline and places of shelter, with restriction of navigation to the wind and sea rough, including the sea rogh enduced by navigation;

.2.3 The division of inland waterways into navigation areas 1, 2, 3 and 4 is adopted in accordance with paragraph 2.2.5.6.2.1 of this part of the Rules;

.2.4 For 1 coastal navigation area sea rough characteristics is adopted based on assess of waves at 3% provided, as is adopted in 2.2.5.1 of this part of the Rules;

.2.5 For coastal navigation areas 2-5 sea rough characteristics is adopted based on assess of waves at 5% -th security, as is adopted in 2.2.5.6.2 of this part for inland waterways.

.3 Class of the vessel, which is continuously operated in the area of this category or certain area of navigation, must not be lower than the grade of this area or conditions of the navigation area.

.4 Ability of vessels operation in areas corresponding to a higher grade, and the possibility and terms of ships' single passages through areas of a higher grade, is the subject of a special review of the Register, taking into account, season, time of the day and duration of operation of the vessel in the area of higher a grade , the duration of the transition, class and type of vessel, her technical condition, complianc of equipment and construction with requirements SC Rules.

In justified cases, the Register may require the shipowner to provide backgrounds and measures to guarantee the safety of vessels operation in areas that correspond to a higher class.

2.2.5.7.3.2

Sea navigation areas

Unrestricted area – navigation in the oceans and seas without restrictions (typical waves heights at 3% provided to 10,0m and wind up to 10 points).

Area R1– navigation in the oceans and seas at sea rough with waves height at 3% provided up to 8,5m and wind up to 9 points with distance from shelter place not more than 200 miles and allowable distance between shelter places not more than 400 miles.

Area R2- navigation in the oceans and seas at sea rough with waves height at 3% provided up to 7,0m and wind up to 8 points with distance from shelter place not more than 100 miles and allowable distance between shelter places not more than 200 miles.

2.2.5.7.3.3

Coastal navigation areas

Coastal 1 – coastal navigation in sea areas under favorable weather conditions at sea rough with waves at 3% provided up to 6,0m and wind up to 8 points with distance from the coastline not more than 20 miles and distance from shelter place not more than 50 miles or without restrictions on inland waterways in areas 1, 2, 3 and 4. For this area, in coordination with the Register may be assigned special restrictions of sea rough on height of the waves at 3% provided ranging from 6,0m to 3,5m inclusively with indication in the class formula of the vessels, as is set out in paragraph 2.2.5.7.2.2 of these Rules.

Coastal 2 - coastal navigation under favorable weather conditions at sea rough with waves at 5% provided not more than 2.0 m and wind not more than 6 points with distance from the shoreline not more than 5 miles and from the place of shelter not more than 20 miles within the sea coast of open and inland seas, where the vessel may be provided with emergency aid and on inland waterways in areas 1, 2, 3 and 4 without restrictions on distance.

Coastal 3 - coastal navigation under favorable weather conditions at sea rough with waves at 5% provided not more than 1,2m and wind up to 6 points with distance from the shoreline not more than 1 mile and from the place of shelter not more than 5 miles within inland waterways in area 1 or the sea coast, where the vessel may be given emergency assistance, and without restrictions on distance on inland waterways in areas 2, 3 and 4.

Coastal 4 - coastal navigation under favorable weather conditions at sea rough with waves at 5% provided not more than 0.6 m and wind up to 6 points with distance from the shorelinenot more than 1 km for the motor, sailing crafts and vessels, which are towed, and not more than 500 m for other crafts within inland waterways in areas 1 and 2 or the sea coast, where the vessel may be given emergency assistance, and without restrictions on distance from the coastline on inland waterways in areas 3 and 4.

Coastal 5 - coastal navigation under favorable weather conditions at sea rough with waves at 5% provided not more than 0.3 m and wind up to 4 points with distance from the shoreline not more than 500 m for motor, sailing crafts and vessels, which are towed, and not more than 200 m for other vessels within inland waterways in areas 1, 2 and 3 or the sea coast, where the vessel may be given emergency assistance, and without restrictions on distance from the coastline on inland waterways in area 4 and in the protected waters of the coastal area of internal seas and areas 1, 2 and 3 of inland waterways.

Notes to the sailing conditions in the coastal area 5.

1. Navigation outside the specified protected waters of area 4 is permitted provided that the requirements of 2.1.5 part IV «Stability, floodability and freeboard" of these Rules are observed.

2. The area may experience conditions with occasional waves of 0,5 m of maximum height, for example from ships passing by.

2.2.6

Automation signs.

2.2.6.1

Marine and mixed sea-river and river-sea navigation vessels and floating structures, automation equipment

of which complies with part XV «Automation" SV Rules, the main class symbol is added wth one of the following signs of automation:

.1 **AUTl** — if the amount of automation allows operation of mechanical installation without constant presence of attendants in machinery spaces and central control room (CCR);

.2 **AUT2** — if the amount of automation allows operation of the mechanical installations by one operator from CCR without constant presence of attendants in machinery spaces;

.3 **AUT3** — if the amount of automation allows the operation of mechanical installation of the vessel with capacity of main mechanisms not more than the 2,250 kW without constant presence of attendants in machinery spaces and CCR;

.4 **AUT1-C, AUT2-C** or **AUT3-C —** If automation is made using computers or programmable logic controllers (PLC), which meet the requirements of section 7 of Part XV «Automation» SV Rules;

.5 **AUT1-ICS, AUT2-ICS** or **AUT3-ICS** — If automation is made using computer integrated manning and control system that meets the requirements of section 7 of Part XV «Automation" of SV Rules.

2.2.6.2

Суднам внутрішнього плавання, устаткування автоматизації яких відповідає вимогам частини X «Автоматизація» Правил СВП, до основного символу класу додається знак **A**.

2.2.6.3

Small crafts, which automation equipment meets the requirements of Part VI «Automation" of SC Rules, the main class symbol is attached with the sign **AUT**.

2.2.7

Sign of manning by one watchman on the navigation bridge.

If navigation equipment of a self-propelled sea and mixed sea-river and river-sea navigation vessel installed on the bridge, meets the requirements of Part V «Navigation equipment" of the Rules on the equipment of sea vessels, which are manned by by one person on the bridge, then the main class symbol is attached with the sign **NAV-1**.

If a navigating bridge of a self-propelled inland navigation vessel is specially equipped to be controlled by one person using radar in accordance with section 11 of Part III "Appliances, equipment and supply. Signal means " of INV Rules then the main class symbol is attached with the sign **NAV-1**.

2.2.8

Sign of equipping the vessel with equipment for fire-fighting on other ships.

If the ship has additional system equipment and supply to fight fire on other ships, drilling units, floating and shore facilities and the vessel in respect of these appliances fully meets the relevant requirements of CV Rules, then the main class symbol of the vessel is attached with the sign **FF1WS, FF1, FF2WS, FF2**, or **FF3WS** depending on the level of equipment of the vessels with such means.

The level of vessel equipment with means fighting fire on other facilities is determined by the set of fire protection systems and equipment prescribed in 6.6 of part VI «Fire protection" of SV Rules.

2.2.9

Sign of dynamic positioning system availability.

If a sea vessel or vessel of mixed sea-river and river-sea navigation is equipped with system of dynamic positioning that meets the requirements of section 8 of Part XV «Automation" of SV Rules, then the main

class symbol of the vessel is added with one of the signs DP1, DP2 or DP3 depending on the dynamic positioning system degree of reservation.

2.2.10

Sign of position mooring system availability.

If a sea vessel or vessel of mixed sea-river and river-sea navigation is equipped with position mooring system then the main class symbol of the vessel is added with one of the signs:

.1 **POSMOOR** – if the position mooring system meets the requirements of 9.1-9.3 of part XV «Automation» of SV Rules;

.2 **POSMOOR-TA** – – if the position mooring system meets the requirements of 9.1-9.4 of part XV «Automation» of SV Rules using thrusters that comply with the applicable requirements of Section 8 of Part XV «Automation» of SV Rules.

2.2.11

Sign of the vessel intended for the carriage of refrigerated cargo.

Vessels designed for the transport and storage of refrigerated cargo or products of fishing in cargo spaces and / or thermoprotected containers using available on board refrigeration unit classified in accordance with Section 4 of this part of the Rules and that meets the requirements of Part XII «Refrigerators» of SV Rules, then the main class symbol is attached with the sign **REF**.

Vessels designed for the transport and storage of refrigerated goods or products of fishing in cargo spaces and / or thermoprotected containers using available on board unclassified refrigeration unit, that meets the requirements of Part XII «Refrigerators» of SV Rules, then the main class symbol is attached with the sign **(REF).**

2.2.12

Sign of main electrical propulsion installation availability.

If a sea and mixed sea-river and river-sea and inland navigation vessel is equipped with a main electric propeller installation that meets the requirements of section 17 of the part XI «Electrical equipment" of SV Rules, then the main class symbol is attached with the sign **EPP.**

2.2.13

Signs of icing protection means availability.

If a seagoing vessel has design and related equipment to ensure effective protection of vessels from icing in accordance with the requirements of Section 10 "Requirements for equipment of vessels with means of icing protection" of part III «Appliances, equipment and supply" of SV Rules, then the main class symbol is attached with the sign **DEICE**.

Additional sign **DEICE** may be assigned to the vessel in construction or in operation

2.2.14

Sign of vessel intended for the carriage of packaged nuclear fuel wastes, plutonium and highly radioactive waste (INF cargo).

Sea vessels designed to transport packaged nuclear fuel wastes, plutonium and highly radioactive wastes that meet the requirements of 7.3 of part VI «Fire protection" of SV, the main class symbol is added with one of the following signs:

INF1-for vessels of ВЯП1 class;

INF2 - for vessels of ВЯП2 class;

INF3 - for vessels of ВЯП3 class.

2.2.15

Sign of vessel provided with loading instrument.

If the ship is equipped with loading instrument that meets the requirements of 1.4.8.4 and Annex 2 of part II «Hull» SV Rules, then the main class symbol is added with sign **LI.**

2.2.16

Sign of cargo vapour discharge system.

If sea and mixed sea-river and river-sea navigation vessel is equipped with cargo vapor discharge system, that meets the requirements of 9.9 part VIII «Systems and pipelines" of SV Rules or inland navigation is vessels equipped with cargo vapor discharge system, that meets the requirements of 9.3 part VII «Systems and pipelines " of INV Rules, then the main class symbol of the vessel is attached with the sign **VCS.**

2.2.17

Sign of inert gas system.

If sea and mixed sea-river and river-sea navigation ship is equipped with an inert gas system that meets the requirements of 9.16 VIII «Systems and pipelines" of SV Rules, then the main symbol of class is added with one of the following signs:

.1 **IGS-IG** – If, as a source of inert gas, in the system is used inert gas generator that based on burning fuel;

.2 **IGS-NG** - if, as a source of inert gas, in the system is used a nitrogen generator;

.3 **IGS-Pad** - if an inert gas system is designed only to create insulating layer in the cargo tanks. This sign can be used for systems with inert gas supply from cylinders as well as for systems using inert gas generators and nitrogen generators if their performance is insufficient to assign them signs **IGS-IG or IGS-NG.**

2.2.18

Sign of crude oil washing system

If sea and mixed sea-river and river-sea navigation ship is equipped with crude oil washing system, that meets the requirements of 9.12 part VIII «Systems and pipelines" of SV Rules, then the main class symbol of the vessel is attached with the sign **COW.**

2.2.19

Sign of centralized cargo control system.

If sea and mixed sea-river and river-sea navigation ship is equipped with centralized cargo control station, that meets the requirements of 3.2.11 part VII «Mechanical installations» of SV Rules, then the main class symbol of the vessel is attached with the sign **CCO**.

2.2.20

Signs of ecological safety.

Sea vessels, that meet the requirements of part VII «requirements for ships equipment for compliance with signs **ECO** and **ECO-S** in class symbol" of Regulations for the Pollution Prevention from Ships, then the main class symbol is added with one of the following signs:

.1 **ECO** - if the vessel meets the requirements on the control and limitation of operational emissions and discharges, and the requirements for the prevention of pollution in emergency cases stated in Section 5 of Part VII «Requirements for equipment of ships for compliance with signs ECO and ECO-S in class symbol" of Regulations for the Pollution Prevention from Ships;

.2 **ECO-S** - if the vessel meets the additional requirements for pollution prevention set out in section 6 of Part VII «Requirements for equipment of ships for compliance with signs **ECO** and **ECO-S** in class symbol" of Regulations for the Pollution Prevention from Ships.

2.2.21

Sign of compliance with ballast water safety exchange.

If sea and mixed sea-river and river-sea navigation ship manages ballast water through ballast exchange at sea and accordingly has Ship manual on the safe exchange of ballast at sea, approved by the Register (see 1.4.13 of Part IV «Stability» SV Rules) or Ballast Water Management Plan, developed in accordance with the provisions of Res. MEPC.127 (53), and ship ballast systems meet the requirements of 8.7 VIII «Systems and pipelines" of SV Rules, then the main symbol of class of the vessel is added with one of the following signs: **BWM (ES)**, **BWM (EF)**, **BWM (ED)**, **BWM (E-SF)**, **BWM (E-SD)**, **BWM (E-FD)** or **BWM (E-SFD)**. **BWM** means that the ship carries out ballast water management; **E** means that as a way to control ballast water management exchange of ballast at sea is chosen; **S** means that the method of successive substitution is used; **F** means that the method of flushing is used; **D** means that the method of dilution is used; **SF**, **SD**, **FD** and **SFD** means the application of the combined method of exchanginging ballast, which is a complex of the aforementioned methods.

2.2.22

Signs of diving system permanently installed on board.

On vessels, equipped with permanently installed diving system, that meets the reqirements of «Rules for classification and construction of underwater apparatuses, ship diving systems and passenger submersibles», the main class symbol is added with one of the following signs:

.1 **SDS < 12** - if the ship is equipped with ship diving complex intended for the work of divers at depths less 12m;

.2 **SDS < 60** - if the ship is equipped with ship diving complex intended for the work of divers at depths less 60m;

.3 **SDS > 60** - if the ship is equipped with ship diving complex intended for the work of divers at depths 60m and more.

2.2.23

Sign of vessel provided with manned submersible.

On vessels, equipped with manned submersible, that meets the reqirements «Rules for classification and construction of underwater apparatuses, ship diving systems and passenger submersibles», then the main class symbol is added with the sign **MS.**

2.2.24

Signs of vessels equipped for carry out of cargo operations at offshore terminals.

On tankers equipped for cargo operations with offshore terminals in accordance with the requirements of Part VIII «Requirements to tankers equipment for cargo operations at sea" of Regulations for the Prevention of Pollution from Ships», the main class symbol is added with one of the following signs:

.1 **BLS – SPM** – if the ship is equipped with bow cargo unit and meets the requirements on equipment of tankers for offshore terminal operations listed in Section 1 of «Requirements to tankers equipment for cargo operations with offshore tterminals» in full volume;

.2 **BLS** – if the ship is equipped with bow cargo unit and meets the requirements on equipment of tankers for offshore terminal, in accordance with provisions stated in 1.1.3 section 1 of «Requirements to tankers equipment for cargo operations with offshore tterminals»;

.3 **SPM** – if the ship is not equipped with bow cargo unit but complies wit hprovisions, stated in 1.1.4 section 1 of «Requirements to tankers equipment for cargo operations with offshore tterminals».

2.2.25

Signs of vessels with helicopter facilities.

Sea and mixed sea-river and river-sea navigation ship, equipped with helicopter facilities in accordance with requirements of section 11 «Requirements to ships equipment with helicopter facilities» of part III «Gears, equipment and supply» of SV Rules, the main class symbol is added with one of the following signs:

.1 **HELIDECK –** if the ship is equipped with helicopter deck and meets the requirements of 11.1.2.1;

.2 **HELIDECK-F –** if the ship is equipped with appliances for refueling helicopters and meets the requirements of 11.1.2.2;

.3 **HELIDECK-H –** if the ship is equipped with a hangar and meets the requirements of 11.1.2.3.

Additional signs **HELIDECK, HELIDECK-F** or **HELIDECK-H** may be assigned to the vessel in construction or in operation.

2.2.26

Signs of propulsive installation reservation.

Sea and mixed sea-river and river-sea navigation ship, on which propulsive installation reservation is provided in accordance with requirements of section 2.7 «requirements to propulsive installation reservation» of part VII «Mechanical installations» of SV Rules, the main class symbol is added with one of the following signs: **RP-1, RP-1A, RP-1AS, RP-2** or **RP-2S**, depending on the level of reservation.

2.2.27

Signs of gas fuelled ship.

On sea and mixed sea-river and river-sea navigation ship, equipeed for using gas, as a fuel, in accordance with requirements of section 4.7 «The requirements for engine rooms, location of mechanisms and gears of ships equipped for use of gas as propulsive installation fuel» of part VII «Mechanical installations» of SV Rules the main class symbol of the vessel is attached with the sign **GFS** (gas fuelled ship).

2.2.28

Additional signs of a small craft.

2.2.28.1

Seasonal navigation restriction sign.

Depending on whether a small craft has required strength of the hull, stability and floodability, specially provided equipment, insulation and heating of accomodation, as well as adequate life-savinr supply and sets of clothes, a seasonal navigation restriction sign is attached .

Seasonal periods for the respective areas are defined in the Load Lines Regulations .

Sign navigation restriction sign is indicated with the letter **T**, with indication after it the respective number 0, 1, 2 or 3, namely:

T0 - for vessels built, furnished and equipped for the possibility of navigation in summer in winter seasonal area, navigation is also possible in areas with the signs **T1** and **T2**;

T1 - for vessels built, furnished and equipped for the possibility of year-round navigation in the summer area, navigation is also possible in the area with sign **T2**;

T2 - for vessels built, furnished and equipped for the possibility of swimming in summer in summer are;

T3 - For ships built, furnished and equipped for year-round navigation in the tropics and the seasonal tropical area, navigation is also possible in areas with sign **T2**.

2.2.28.2

Sign of navigation restriction by time of day.

Only in coastal areas 3, 4 and 5 can be made restrictions on navigation of vessels in the daytime. In this case, the sign is attached: 

2.2.28.3

Sign of small craft commercial use.

If a small craft, except crafts of 5 coastal navigation area, meets the requirements of Part XIII «Specific requirements for vessels for commercial transportation of passengers" of SC Rules, sign **K** is attached.

2.2.29

The verbal characteristics in a class symbol.

2.2.29.1

Sea vessels that meet the specified volume SV Rules requirements, which take into account the structural features of the ship and the conditions of her operation, the main class symbol of is added with appropriate verbal characteristics.

SV Rules of he Register contain certain requirements, the implementation of which enables the introduction of these verbal characteristics into the class symbol:

Bilge water removing ship - збирач ніфтовмісних вод

Bulk carrier - навалювальне

Catamaran - катамаран

Container ship - контейнеровоз

Crane vessel - кранове

Docklift ship - наплавне

Dredger – земснаряд

Escort tug - ескортний буксир

Fishing vessel - риболовецьке

Floating crane - плавкран

Floating dock - плавдок

Hopper – грунтовідвізне

Oil recovery ship - нафтозбирач

Oil tanker - нафтоналивне

Oil/bulk carrier – нафтонавалювальне

Oil/bulk/ore carrier - нафторудонавалювальне

Ore carrier - рудовоз

Passenger ship - пасажирське

Pontoon – понтон

Pontoon for technological services – технологічний понтон

Pontoon for transportation services – транспортний понтон

Ro-ro passenger ship - пасажирське накатне

Ro-ro ship - накатне

Salvage ship - рятувальник

Shipborne barge - суднова баржа

Special purpose ship - спеціального призначення

Supply vessel - судно забезпечення

Tanker - наливне

Tanker (water) - наливне (вода)

Tanker (wine) - наливне (вино)

Timber carrier - лісовоз

Tug - буксир

and so on.

Note. The verbal characteristics in a class symbol of the ship, engaged on international voyages, including international routes on inland waterways, is written in English. At the request of the shipowner verbal characteristics in a class symbol of the ships specified can be written in two languages: English and Ukrainian, for example: **Oil tanker (нафтоналивне) (ESP).** Словесна характеристика в символі класу судна, що не здійснює міжнародні рейси, записується українською мовою, наприклад: **Нафтоналивне (ESP)**.

Special signs and verbal characteristics in the symbol of class gas carriers, chemical carriers, high-speed crafts, small type A WIG, floating rigs, habitable submersibles and ship diving systems are specified in accordance with the Rules for classification and construction of these types of vessels (see 1.3.1.2).

With verbal characteristics «**Tanker**» particular cargo transported by the vessel is indicated in brackets, e.g.: «**Tanker (water)**», «**Tanker (wine)**» etc.

For berth-connected vessels «**Berth-connected ship**» or «**Стоянкове**» (see 2.2.5.1.7) as a verbal characteristics is specified purpose of the vessel listed in the definition of berth-connected vessel (see 1.2.1).

If the volume of the Regulation requirements, which the vessel meets, allows, two or more verbal characteristics such as: «**Supply vessel, Salvage ship, Tug**» can be written in a class symbol**,** or verbal characteristics may be provided in the form of a combination of shortened words such as: «**Cargo/passenger ship**», «**Oil/bulk carrier**», «**Oil/bulk/ore carrier**» etc.

If oil tanker or oil recovery vessel meets the requirements for vessels carrying or collecting from the sea surface and transporting petroleum products with a flashpoint above 60 ° C, the temperature indicated in the verbal characteristics, e.g.: «**Oil tanker (>60ºC)**», «**Oil/ore carrier (>60ºC)**», «**Oil recovery ship (>60ºC)**».

For oil tankers of 150 meters and more, which fully meet the requirements of Part II "Hull" and, for those vessels of unrestricted navigation area, of part XVII «General rules for construction and strength of oil tankers with double sides" of SV Rules a sign CSR is attached after verbal characteristics.

For bulk carriers of 150m and more, which fully meet the requirements of Part II "Hull" and, for those vessels of unrestricted navigation area, of part XVIII «General rules for construction and strength of bulk carriers" of SV Rules a sign CSR is attached after verbal characteristics.

On addition the main class symbol with verbal characteristics «Bulk carrier» for ships of 150 meters and more in compliance with the relevant requirements of Part II "Hull" and, for those vessels of unrestricted navigation area, of part XVIII «General rules for construction and strength of bulk carriers" of SV Rules the following signs are attached after verbal characteristics:

.1 **BC-A** – for vessels designed to carry bulk cargoes with density of 1 t / m^3 and more at the maximum draft of which the holds remain empty;

.2 **BC-B** - for vessels designed to carry bulk cargoes with density of 1 t / m^3 and more, when loading all holds;

.3 **BC-C** - for vessels designed to carry bulk cargoes with density less than 1 t / m^3.

For bulk carriers, which class symbol contains a signs **BC-A** or **BC-B**, which cargo holds are designed for loading / unloading using grabs with weight of each 20 tonnes or more in accordance with the requirements of Section 1 of Chapter 12 of Part XVIII «General rules for construction and strength of bulk carriers " of SV Rules, after the said sign is attached sign **GRAB (X)**, where instead of X is indicated the weight of a grab in tonnes, for example: **GRAB (30t)**.For all other bulk carriers addition of GRAB (X) sign is voluntary.

If the vessel has not been initially designed for loading and unloading in multiple ports, after all these signs a record **"(no MP)"** is attached.

On addition to the main class symbol of propelled vessels of verbal characteristics «**Chemical tanker**», «**Oil tanker**», «**Bulk carrier**», «**Ore carrier**» or combinations of words («**Oil/bulk carrier**», «**Oil/ore carrier**» etc.) after verbal characteristics is necessarily added: **(ESP)**, indicating the need to provide these vessels for expanded program surveys. For example:

Oil/ore carrier (>60°C)(ESP).

Verbal characteristics **Escort tug is** attached to the main class symbol of tugs that meet the requirements of section 9 "Requirements concerning tugs for escort operations" of part III «Gears, equipment and supply" of SV Rules.

2.2.29.2

The vessels of mixed river-sea navigation, complying with a certain volume of relevant INV Rules requirements for types of ships contained therein, taking into account the structural features of the ship and conditions of her operation, to the main symbol of class is added characteristics using stated in 2.2.29.1 and provided in INV Rules types the ships, for example, for missing in in 2.2.29.1 types: **Tug** – **pusher**, **Cargo ship**– **pusher** etc.

For vessels of mixed river-sea navigation, carrying dangerous goods in bulk, the main class symbol in verbal characteristics is added with the type of tanker, determined in accordance with 1.5.1 of the XIII «Vessels for the carriage of dangerous goods" of INV Rules.

2.2.29.3

Inland navigation vessels, complying with a certain volume of relevant INV Rules requirements for types of ships contained therein, taking into account the structural features of the ship and the conditions of her operation, to the main symbol of class is added a verbal characteristics using stated in 2.2.29.1 and provided in INV Rules types of ships, including provided in 2.2.29.2, for example, for the missing in 2.2.29.2 types, Pusher.

For inland navigation vessels transporting dangerous goods, to the main class character in verbal characteristics is added as set out in 2.2.2 of part XIII «Vessels for the carriage of dangerous goods" of INV Rules.

2.2.29.4

For small crafts and floating structures satisfying specific volume of SC Rules requirements,taking into account their design features, purpose and operating conditions, the main symbol of class is added with the verbal characteristics.

The verbal characteristics displays:

.1 features of the structural type of vessel:

БКС – multihull vessel;

ВМ – jet ski;

ВШС – high speed craft;

Б – vessel, which is towed;

В – sailing vessel (if installation of motor is not provided);

Г – rowing vessel (if installation of motor is not provided);

ГЛС – gliding vessel;

КТ – frame and tissue rowing boat;

КТВ - frame and tissue sailing vessel;

КТМ – frame and tissue vessel with an outboard motor;

Н1...Н8 – inflatable boat with an indication of her type, defined according to the 6.1.3 part II «Hull" of SC Rules, where arabic numeral corresponds to a roman numeral of a small craft type;

НБ – inflatable boat, which is towed;

СТ – berth-connected vessel;

СМПВ – vessel with a small area of waterline;

СПК – hydrofoil vessel;

СППа – air cusion vessel amphibious;

СППс - air cusion vessel skeg;

.2 type of vessel for the purpose: recreational, patrol, fishing, yacht, cottage, training, ferry pontoon, jetty, etc.

The verbal characteristics of the vessel's purpose can be written in the class of the vessel in abbreviated form, e.g. Recreational - rec., Patrol - patr., Fishing - fish., Training - train. etc.

If necessary, a verbal characteristics may consist of several words, such as: SFC / patr / rec.

Indication of verbal characteristics for two or more kinds of structural types and kinds of purpose of one ship means, as a rule, her separate use for each purpose and compliance with the requirements of the ship at the same time with rules for all kinds of purposes.

With the simultaneous use of the vessel for a variety of purposes the analysis is carried out and necessary technical documentation for the confirmation of such use with reflection in the specification of the vessel and the stability and floodability information of the vessel (ship owner's manual).

When deciding on a possible, agreed with the Register, carry out of requirements, such as requirements concerning ship supply, separately depending on the kind of purpose, the specified is reflected in the specification of the vessel and information on the stability and buoyancy of the vessel (the Manual for the owner of the ship) and the Certificate of Fitness of the small crsft for navigation with a footnote "depending on the purpose."

Indication of verbal characteristics of the type of vessel for the intended purpose "Fish" (fishing) on the other hand is allowed for self-propelled vessels with main engines of 55 kW or more, and self-propelled vessels with a gross tonnage of 80 t or more.**2.2.30 Restriction of certain signs action.**

If the implementation of a certain volume of requirements of the Rules, required for the introduction of the relevant signs into the class symbol, is confirmed only when the restrictions are set by the Register, after the class symbol in brackets the following signs and conditions are indicated, under which abuse these signs expire, for example: **КМ ⊕ Ice6 2 AUT2 Ro-ro ship (Ice6 2 at *d* ≤ 8,4 m).**

2.3

ADDITIONAL CHARACTERISTICS

2.3.1

In fulfilling speciifed requirements of the Rules, due to design features or operational qualities of the vessel, the implementation of which is not shown by signs and verbal characteristic in the symbol of class, vessel's compliance with such requirements shall be certified by the record in the section "Other Characteristics" of the Classification certificate indicating that such vessel is suitable for the carriage of dangerous cargoes as specified in the certificate ...; ship is suitable for cargo transportation in containers on deck of the international standard and / or in the specified holds; vessel is suitable for use in water covered with oil, etc. (see also 3.3.1.5 of Part II «Hull» SV Rules).

2.3.2

Supply vessels and other vessels for servicing offshore oil and gas deposits (excluding floating rigs, floating cranes, pipe layring barges and floating hotels), satisfying the requirements of the Guidelines for the transport of limited amounts of hazardous and noxious liquid substances carried in bulk aboard marine vessels security (IMO resolution A.673 (16), as amended by resolutions MSC.236 (82) and MEPC.158 (55)), must have the following entry in the section "Other characteristics" of the Classification certificate "vessel suitable for bulk transportation of a limited number of hazardous and noxious liquid substances ", as specified in the Certificate of Fitness of sea supply ship.

2.3.3

For bulk carriers, which may class symbol contains signs **BC-A** or **BC-B** (see 2.2.29), restrictions are recorded in the section "Other characteristics" of the Classification certificate, to be followed in the operation as a result of loading conditions applied during design (see 3.1.3 of Section 1 Chapter 1 Part XVIII «General rules for the design and strength of bulk cargo ships» of SV Rules), in the following cases:

for signs **BC-A** and **BC-B** a record «**maximum cargo density**...**t/m^3**» is made**,** if maximum cargo density is less than 3 t/m^3;

besides, for sign **BC-A** allowable combination of specified empty cargo holds is recorded, for example: «**cargo holds Nos. 2, 4, ... may be empty**».

2.4

CHANGE OF CLASS SYMBOL SIGNS

2.4.1

The Register may exclude or change appropriate sign in class symbol in case of change or violation of conditions that were the basis for the introduction of the sign into the class symbol.

3

ADDITIONAL PROVISIONS

3.1

Reserved.

3.2

Reserved.

3.3

Reserved.

3.4

CLASSIFICATION OF VESSELS THAT MEET THE PROVISIONS OF DIRECTIVE 2013/53 / EU AND VESSELS WITH OCS CLASS

3.4.1

The provisions of this section apply to small crafts with marking "CE" affixed in accordance with the basic principles of Regulation (EC) № 765/2008 (Annex II) and Article 18 of Directive 2013/53 / EU with the number of notified body, including Register as a notified body, (if it is involved at the stage of production control or assess at the end of production), if necessary, in accordance with the national law of the Administration of the flag, their classification by the Register in accordance with SC Rules, including the use of recreational craft for commercial carriage passenger.

3.4.2

The Register, together with providing of a small craft for classification, should be provided, depending on the applied vessel conformity assessment module in accordance with Article 20 of Directive 2013/53 / EU,

Declaration of conformity (EU Declaration of conformity), composed by the manufacturer of the ship or an authorized representative or, for vessels with lengths from 12m to 24m of design categories A, B and C, the Declaration of conformity (EU Declaration of conformity) and a copy of the Certificate of EU of type approval (EU type-examination certificate (with Supplement) or copy of the Certificate of Conformity (Certificate of conformity), issued by the notified body.

3.4.3

The Register may require providing technical documentation that enables to carry out conformity assessment of the craft with Directive 2013/53 / EU (the volume in accordance with Annex IX to the Directive) and verification of the requirements of SC Rules under 3.4.5 and 3.4.6.

The technical documentation submitted by the manufacturer of the ship or its authorized representative or, in the case they are outside Ukraine, the person who delivered the vessel to Ukraine (technical documentation regarding conformity assessment of the ship with Directive 2013/53 / EU, may be kept (provided) in relevant national authorities for inspection purposes).

3.4.4

According to assessment by Directive 2013/53 / EU and the standards of ISO 12217: the ship is assigned with a defined design category with establishing of restrictions on sea rough with significant wave height ($h_{1/3}$) and wind force, specified in table 3.4.4-1 and 3.4 .4-2.

Table 3.4.4-1 Project categories of vessels according to Directive 2013/53 / EU

Design category	**Wind force (Beaufort Scale)**	**Significant wave height ($h_{1/3}$), m**
A	more than 8	more than 4
B	to 8 inclusive	to 4 inclusive
C	to 6 inclusive	to 2 inclusive
D	to 4 inclusive	to 0.3 inclusive

Definitions:

A. Recreational ship with assigned design category A is considered designed for navigation conditions at wind force exceeding 8 points (on a Beaufort scale) and a height of significant waves of 4m or more, except for unusual conditions such as storm, gail and storm, hurricane extreme state of the sea or unusual sea waves;

B. Recreational ship with assigned design category **B** is considered designed for navigation conditions at wind force exceeding 8 points inclusive and a height of significant waves of 4 m inclusive;

C. Recreational ship and jet-ski with assigned design category **C** is considered designed for navigation conditions at wind force to 6 points inclusive and a height of significant waves of 2 m inclusive;

D. Recreational ship and jet-ski with assigned design category **D** is considered designed for navigation conditions at wind force to 4 points inclusive and a height of significant waves of 0,3m inclusive with occasional waves of 0,5 m maximum height.

Table 3.4.4-2 Project categories of vessels according to ISO standards 12217:

Design category	**A**	**B**	**C**	**D**
Maximum wave height	about 7m significant waves	4m significant waves	2m significant waves	0,3 m significant waves 0,5m sudden waves (maximum) -h_{max})

Design category	A	B	C	D
Typical wind force on the Beaufort scale, points	≤ 10	≤ 8	≤ 6	≤ 4
Wind speed estimated, m/s	28	21	17	13

3.4.5

Comparison of the requirements under the class of SC Rules, with assessment, adopted by the Directive 2013/53 / EU, is performed in the table. 3.4.5 upon the main characteristic - the permitted area of vessel navigation, for providing which, the requirements, laid down in the relevant parts of SC Rules, shall be observed.

However, due to some differences between the requirements of SC Rules and Directive 2013/53 / EU, full compliance of the ship's class, assigned in accordance with SC Rules, with a certain design category under Directive 2013/53 / EU should be clarified, comparing available freeboard of the vessel and characteristics of closures and specified in the vessel's documentation allowed navigation restrictions: distance from the shoreline (place of shelter), wind force and sea rough.

Table 3.4.5. Comparison of Register's class and design categories according to Directive 2013/53 / EU

Class of the Shipping Register of Ukraine			**Design categories in accordance with Directive 2013/53/EU**			
Main symbol	Navigation area		Design category	Variants		
				Sailing with length ≥ 6 m, ISO 12217-2:2002	Not sailing with length ≥ 6 m, ISO 12217-1:2002	With length < 6 m, ISO 12217-3; 2002
	Sea	**M**	**A**	**1**	**1**	**no**
		MR1				
		MR2				
KM ⊕ **K** ⊕ **KE** ⊕	Coastal	**1**	**B**	**1**	**1, 3**	**no**
		2	**C**	**2, 3, 4, 5**	**2, 4**	**2, 4, 10, 11**
		3	**C**	**6**	**5**	**6, 8, 9**
		4	**C**	**7**	**6**	**1, 7**
		5	**D**	**2, 3, 4, 5, 6**	**2, 4, 5**	**2, 4, 5, 6, 8, 9, 10, 11**
		5	**D**	**7**	**6**	**1, 3, 7**
Note: Options on specified ISO 12217 standards series are set in the table as indicative that determine the minimum required version to meet the specified class of the Register. However, in the presence of the actual ship characteristics that exceed the requirements on ISO 12217 standards series to certain variant ofperformance, a higher class of the Register may be assigned to this vessel.						

3.4.6

Class of the Register, with the assessment in accordance with Directive 2013/53 / EU, is assigned to the vessel, taking into account the table 3.4.5.

Wherein:

.1 Navigation area is determined in accordance with the design category of the vessel.

For the vessel of category **A** navigation area is defined as unrestricted, **R1** or **R2** when there is evidence of the possibility of ship's sailing in rough seas and winds, corresponding to set for these areas in 2.2.5.7.3.2.

For the vessel of category **B** navigation area is defined as the coastal **1**, indicating navigation restrictions on rough seas and winds,corresponding to set by this part for this area in 2.2.5.7.3.3.3.

For the vessel of category **C** navigation area is defined as coastal **2** or **3** or **4** if there is evidence of the possibility of ship's sailing in rough seas and winds, corresponding to set by this part for these areas in 2.2.5.7.3.3.3.

For the vessel of category **D** navigation area is defined as the coastal **5** indicating the restrictions on navigation in rough seas and winds, corresponding to set by this part for this area in 2.2.5.7.3.3.3 taking into account the notes to this navigation area.

For comparison of the evaluation criteria of sea rough and wind data of table 1.2.3.1 of this part are used;

.2 Navigation area must be assigned lower than the relevant design category in Table. 3.4.5 in the case of non-compliance with SC Rules on equipment and supply of the vessel with life-saving and signal means, radio navigation equipment, fireprotection and emergency supply for this area of navigation;

.3 The vessel should be checked for compliance with the applicable requirements of SC Rules, provided for vessels with class that complies with the assigned navigation area in terms of anchor and mooring maintenance, closing holes, floodability, life-saving and signal appliances, radio navigation equipment, fireprotection and emergency supply;

.4 When using recreational vessel for commercial transportation of passengers, she must be checked for compliance with Part XIII «Specific requirements for vessels for commercial transportation of passengers" of the Rules;

.5 Manual for the owner must be on the vessel (see 1.3.4.11).

Manual for the owner of the vessel, except for reporting information in accordance with Directive 2 013/53 / EU, namely:

- name of the manufacturer;
- CE marking description;
- design category of the vessel;
- mass of the empty vessel, kg;
- established by the manufacturer maximum load (fuel, water, supplies of provisions, miscellaneous equipment and people), kg, excluding the mass of content of completely filled stationary tanks;
- established by the manufacturer number of people on board, for the transportation of which the vessel is designed;
- the characteristics of maneuverability of the vessel with the largest engine capacity, for which she is intended, and with which the vessel is built;
- maximum rated engine power;
- the risk of fire or flooding,

must contain the information required by SC Rules to compile information about stability and floodability of the ship under 1.3.10 of Part IV «Stability, floodability and freeboard" or be supplemented by such information (possibly a separate addition to the Manual).

3.4.7

Class of the Register by SC Rules to a vessel, classified by OCS, is assigned considering the determined by OCS area and conditions of navigation, with verification of compliance with SC Rules in terms of stability, floodability, life-saving, signal and emergency supply, radio navigation equipment, to the extent of applicable and relevant requirements of SC Rules, to assigned by OCS navigation area and conditions.

.**3.4.8**

The vessels classified in accordance with the Rules of the Register of Ukraine for small crafts, which were in force before enactment of Part I "Classification" with the valid SC Rules, can be classified under SC Rules, subject to carry out of their requirements and taking into account the content of table. 3.4.5:

Table 3.4.5. Reclassification in accordance with SC Rules

<table>
<tr><th colspan="6">Class of the Shipping Register of Ukraine</th></tr>
<tr><th colspan="3">Rules for classification and construction of small crafts, edition 2005 and edition 2013, and this part I «Classification» edition 2010 and 2014</th><th colspan="2">«Guide on classification, technical supervision over construction and operation of yachts»</th><th>Rules for classification and construction of small crafts edition 2001</th></tr>
<tr><th>Main symbol</th><th colspan="2">Navigation area</th><th>Main symbol</th><th>Navigation area</th><th>Main symbol</th><th>Navigation area</th></tr>
<tr><td rowspan="9">KM ⊕
KE ⊕
K ⊕</td><td rowspan="3">sea</td><td>H/o/M</td><td rowspan="5">⊕</td><td>K0</td><td colspan="2" rowspan="4">Classification not provided</td></tr>
<tr><td>I/
MR1</td><td>K1</td></tr>
<tr><td>II/
MR2</td><td>K2</td></tr>
<tr><td rowspan="6">costal</td><td>1</td><td>K3</td></tr>
<tr><td>• 2</td><td>K4</td><td rowspan="6">KM⊕M
KE⊕M K⊕M</td><td>Category 1</td></tr>
<tr><td>2</td><td colspan="2" rowspan="5">Classification not provided</td><td>Category 2</td></tr>
<tr><td>3</td><td>Category 3</td></tr>
<tr><td>4</td><td>Category 4</td></tr>
<tr><td>5</td><td>Category 5</td></tr>
<tr><td></td><td>Category 6</td></tr>
<tr><td></td><td>Category 7</td></tr>
</table>

4. TECHNICAL DOCUMENTATION

4.1 GENERAL PROVISIONS

4.1.1

General requirements relating to the examination and approval (approval) of technical documentation for vessels, materials and products listed in Part 2 of "Technical documentation" of Rules for technical supervision over the construction of ships and manufacture of materials and products.

4.1.2

This part of the Rules lists the project documents of the ship in construction (plan approval documentation), submitted to the Register for examination and approval.

4.1.3

Requirements to the volume of technical documentation of the vessels, which is converted, repaired or renewed, at reclassification of the vessel and also at the initial survey of the vessel, built without technical supervision of the Registers or other classification organization are listed in Part I "General requirements" of Rules ships survey and in 4.4 of this part of the Rules.

Wherein in the technical documentation for the conversion of sea and mixed (sea-river and river-sea) navigation single hull tankers into double-hulled oil tankers or bulk carriers the relevant requirements of SV Rules, including unified interpretations of IACS SC226 (Nov. 2008, Rev. 1 Dec 2012) (published at IACS site) should be taken into account .

4.1.4

Requirements to the volume of technical documentation for materials and products for vessels, which are the objects of the Register technical supervision in accordance with Annex 1 "Nomenclature of the Register Technical Supervision objects" Part 1 "Institutional provisions on technical supervision" of Rules for technical supervision over construction of vessels and manufacturing of materials and products that are listed in the relevant parts of the SV Rules, MNV Rules, INV Rules, SC Rules and regulations, specified in 1.3.1.1.2, 1.3.1.1.4 and 1.3.1.1.6 of General provisions on technical supervision activities.

Technical documentation for materials and articles must be submitted prior to their manufacture for the Register technical supervision over their production, testing and certification prior to their installation on the ship. Upon presentation of a material or product without a certificate of the Register or the organization, recognized by the Register, the material or the product to be installed on the ship shall be certified with the providing of the specified technical documentation and tests carry out in accordance with the main sample acceptance program.

Agreed with the Register standards for certain materials and products can replace the relevant part of the documentation or documentation in general.

4.1.5

The volume of technical documentation for the construction of vessels, specified in this paragraph takes into account the requirements of Rules, stated in 1.3.1.1.2-1.3.1.1.4 t 1.3.1.1.6-1.3.1.1.10 of General provisions on technical supervision activities.

The volume of technical documentation for the construction of the ship and manufacture of materials and products provided in this part of the Rules should be amended with regard to the requirements of Rules, applicable to to the vessel, specified in 1.3.1.1 and not mentioned above, and of Rules applicable to the vessel of a special type, specified in 1.3 .1.2 of General provisions on technical supervision activities.

4.1.6

For vessel, which are subject to International Conventions and Codes, technical documentation in accordance with the requirements of applicable to the vessel conventions and codes is provided.

4.1.7

In cases where on the ship alternative structures, measures and devices that deviate from the requirements of international conventions are used, the Register must be submitted for the approval with Technical Analysis with grounding that such alternative structures, measures and devices provide an equivalent level of safety, provided by the relevant requirements of the International Conventions (see IMO resolution MSC.216 (82), annex 3 (amendment of 2006 to SOLAS IC, Reg. II-1/55 and III / 38).

Technical analysis should be carried out and provided for the examination and approval of the Register under the provisions of the Guidance on alternative structures, measures and devices (see IMO Circular MSC 1 / Circ.1212).

Regarding alternative fire protection structures, measures and devices - see 1.7 of Part VI «Fire protection" of SV Rules and regarding life-saving appliances - 1.3.11 of Part II "Life-saving appliances" of Rules on the equipment of sea vessels.

4.2 PROJECT DOCUMENTATION OF THE VESSEL IN CONSTRUCTION

4.2.1

General requirements.

Prior to the construction of vessels the Register shall be provided with project documentation of the ship in construction (plan approval documentation), which allows to make sure that all the requirements of the Rules of the Register in respect of that ship have been carried out. Documentation submitted for examination must be submitted, as a rule, completed in accordance with the following list, taking into account the characteristics and type of vessel.

In case of absence (not required and not provided by the Rules) on the vessel of appropriate structures, mechanisms, devices, systems, equipment and supply, their technical documentation is not provided for the Register. In case of presence on the vessel of specific constructions, mechanisms, devices, systems, equipment and supply, which are not subject to supervision of the Register, the technical documentation for them is submitted to the Register to the extent necessary to comply with the Rules on such constructions, mechanisms, devices, systems, equipment and softwaresupply.

Shown in the lists documents for the construction of small crafts and crafts of a simplified design can be combined respectively, provided they display design solutions with the ability to verify that all the requirements of the Rules have been carried out.The Register may require submission of additional documentation in the absence in documentation submitted confirmation that all the requirements of the Rules have been carried out.

On positive results of examination the project documentation is approved or, for documents, which names in the lists are specified with a sign "(*)", taken into account with putting appropriate stamp.

Register approval of project documentation does not apply to vessel's elements, structures and equipment provided for therein, but are not objects of the Register's technical supervision and which are not subject to the requirements of the Rules; approval of documents does not confirms their compliance with requirements applied in their development, other than the requirements of the rules and regulations of the Register and agreed with the Register normative documents in part regulated by them.

4.2.2

General:

.1 general ship specification (*).

Section "Radio Equipment" of general specification of vessels operated at sea and on navigable sea routes of inland waterways (INR) of Ukraine according to the Decree of the Cabinet Ministers of Ukraine from 06.12.1996 №640, should contain information about the sea navigation area (concerning radio equipment) and navigation area on INR and for ships with sea (concerning radio equipment) navigation area - maintenance of radio equipment in accordance with the requirements of the Global Maritime Distress and Safety System (GMDSS).

General passenger vessel specifications shall include information about the availability of cabins equipped for persons with reduced mobility.

General inland navigation vessel specification: self-propelled cargo vessels, pusher, pusher and passenger must contain information about the equipment for operation with a minimum crew of vessels (indicating systems (standard) and minimum crew);

.2 drawings of the general location of the vessel; drawings of an overall plan security center (for passenger ships built 1.07.2010 and after this date).

For vessel with bifuel engine (with sign **GFS** in class symbol) drawings of general location of the vessel indicating the location of:

- storage tanks for gaseous fuels (EGP) and any openings in them;

- storage facilities and fuel preparation and any openings that lead to them;

- doors, hatches and any other openings leading to explosive spaces and spaces;

- vapor tubes and places of air inflow and exhaust of explosive areas and spaces ventilation system;

- doors, skylights, vestibules, ducts exits and other openings in rooms adjacent to the explosive zones;

.3 list of standard equipment, systems, gears and materials that are the objects of technical supervision of the Register (*) in accordance with nomenclature of the Rules of technical supervision over the construction of ships and manufacture of materials and productss containing data on:

- type and basic technical data;

- manufacturing enterprise;

- reliability (only for systems, devices, instrumentation and automation elements);

- approval by the Register or by other competent authority, recognized by the Registers;

.4 drawings of explosive zones, spaces and premices;

.5 for vessels of mixed river-sea and inland navigation carrying dangerous goods:

.5.1 damage control plan of the vessel;

.5.2 instructions for taking measures in case of emergency or incident;

.5.3 cargo space plan and location of electrical equipment installed in it (for tankers);

.5.4 for of electrical equipment installed in the cargo space, including the following information: machine or appliance; location; type of protection; type explosion protection; institutions that conduct tests; and number of this institution (for tankers);

.5.5 list or general plan of electrical equipment location installed outside the cargo space and which can be used during loading, unloading or decontamination. All other electrical equipment must have red marking (see 3.3.29.3 and 3.3.29.4 of PartXIII "Vessels for carriageof dangerous goods" INV Rules (for tankers);

.5.6 instructions for speed of loading and unloading of cargo system of tankers of type C i N;

.5.7 instruction on cargo heating (for vessels intended for the carriage of substances having a melting point ≥ 0°C).

.6 list of operational activities performed by the shipowner during the preparation of the oil recovery ship for operations to rectify the oil spill;

.7 list of measures and technical solutions that provide electrostatic and galvanic intrinsical safeен (if required by the Rules), including description and layout of constructive facilities and equipment used for such purposes;

.8 drawing of location on the ship of IMO number according to the requirements of Regulation XI-1/3 of the Convention SOLAS-74/2004 (for vessels engaged in sea voyages: passenger vessels - with gross tonnage of 100 or more cargo vessels - with gross tonnage of 300 or more);

.9 drawing of identification anchors signs (for inland vessels); drawing of installing metal plate with information regarding the Ship's certificate (certificate of seaworthiness) (for inland waterway barges, which are pushed, if absence of this certificate and inland vessel tonnage certificate on board is supposed); drawing of installing metal plate with information regarding the Certificate of Approval ADR (for inland navigation barges, which are pushed, which are not carrying dangerous goods) and additional (for dry cargo or liquid barges carrying dangerous goods), metal or polymer plates with photocopy of a specified certificate if absence of this certificateon board is supposed;**.10** Guide for the owner (*), see 1.3.4.11 (for small crafts) (approved if it includes information about the stability and floodability see 4.2.7.15);

.11 equivalent replacement sheet (list of available in the design decisions on structures, materials and products that differ from regulated by the Rules, with grounding of their use) - in the case of equivalent replacement , see 1.3.4.1 of General provisions on technical supervision activities .

The grounding displays: the requirements of the rules on the design, material or product that is replaced, used on the ship construction, material and product grounding of equivqlent replacement, decision taken;

.12 *Technical analysis* of alternative constructions, measures and gears (see 4.1.7) - in the event of their use (*);

.13 for vessels with signs of propulsive installation reservation **RP-1, RP-1A, RP-1AS, RP-2** o **RP-2S** (for passanger ship) (which is applicable):

.1 calculations showing that in case of a single failure the ship maintains progress and control in accordance with the requirements of 2.7.5.3 of Part VII «Mechanical installation" of SV Rules (for vessels with additional signs **RP-1A, RP-1AS, RP-2** or **RP-2S**) (*).

Alternatively the submission of the results of model or full-scale tests is allowed;

.2 qualitative analysis of propulsive and steering gears failures (under sec. 12 of Part VII «Mechanical installation" of SV Rules) or analysis of the types and effects of failures (Failure Mode and Effect Analysis, FMEA) of propulsive plant elements based on building a fault tree or equivalent risks assessment method, agreed with the Register (*);

.3 calculation of torsional oscillations, in which the possibility of long-term alternative propulsive installation work should be separately considered (*);

.4 programs of mooring and sea trials (possibly with the inclusion into the programs in accordance with 4.3);

.14 technical analysis of the ship ability to reach the port in an emergency in accordance with 2.2.6 and 2.2.7 of the Part VI «Fire Protection» of SV Rules with regard to interpretations of IMO circular MSC.1 / Circ.1369 (with MSC.1 / Circ.1369 / Add. 1) (for passenger ships of 120 m or more or having three or more main vertical zones (*);

.15 for vessel with bifuel engines (with sign **GFS** class symbol) is provide analysis of risks, related to the use and storage of gaseous fuels and the possible consequences of its spill by the method, approved by the Register.

The analysis should consider risks of the hull structural elements damage and failures of any equipment after the accident, associated with the use of gas fuel. The results of the risk analysis should be included in the manual.

4.2.3

Hull documentation [3]**:**

.1 calculations for determining the size of hull ligatues constructions and, if required by the Rules, calculations of the total longitudinal strength and firmnes of ligature for all specific ship loading cases, including cases of loading (unloading) and carriage of non-grain bulk cargoes, and, where required by the relevant rules, local strength calculations; for hulls made of reinforced concrete -strength calculations of reinforced concrete (steel concrete, complex, composite, of prestressed concrete) constructions, calculations of structures for the disclosure of cracks and endurance and cross-sectional anchor area; vessel and hull structures vibration calculations (excluding small crafts) (*);

.2 midship framesection and typical cross sections indicating the distances between the major constraints longitudinal and transversal framing the main ship's dimensions and their ratio ещ ship's class symbol. For vessels, for which the total longitudinal strength calculation is carried out, hull resistance moment value for estimated cross-sections are indicated on drawings;

.3 constructive longitudinal section indicating frame spaces of ship's length sections limits, position of watertight bulkheads, pilars, location of superstructures and deck houses.

For concrete hulls connection of fittings (profiles) and plates, profiles and rods in steel-concrete and complex structures of embedded parts and cut-outs design is shown in the drawings;

.4 design drawings of decks and platforms specifying values of estimated loads (including from forklifts and containers), position and size of cuts and their reinforcements, longitudinal coamings end constructions;

[3] All structural drawings must contain dimensions of hull ligatures, their materials, indicating the categories pursuant to Part XIII «Materials" of SV Rules and also specified typical cross sections and components, types and sizes of angular joints; for concrete hulls classes and marks of concrete, reinforcing steel are specified.

.5 constructive drawings of double bottom (bottom). Drawings should reflect the cross-sections of sea chests design indicating the pressure in the system of scavenging, the head pressure table, watertight sections borders, the size and location of man holes and other cuts. For vessels for the carriage of bulk cargoes and ore carriers, permissible load on the double bottom should be specified.

.6 Shell plating expansion indicating the boundaries of hull areas, position and size of cuts in the shell plating, and for ships with ice strengthening - of upper and lower limits of the ice belt and corresponding drafts fore and aft (with trim) location intermediate frames. For vessels with of fiberglass shell plating expansion is submitted if outer plating has a different thickness;

.7 drawings of of longitudinal and transverse bulkheads, including tanks baffles (for tanks height of overflow and air pipes should be listed);

.8 drawings of stern framing and aft frame;

.9 drawings of bow framing and fore frame and for pushers - towknee;

.10 drawings of multi hull vessels bridge connections design;

.11 for small crafts drawings of cockpit, buoyancy elements design and ballast keel with their attachments to the hull, hull frame attachments design, flexible and resilient elements between themselves and with the solid hull;

.12 drawings of cantilever and propeller shafts enclosures and nozzles, special constructions of high-speed crafts, air ducts and the hovercraft air bag railing;

.13 drawings of foundations for the main machinery, boilers and shaft line bearings with the bottom construction underneath indicating the type and capacity of the mechanism, as well as indicating that the foundations meet the requirements of the technical documentation of principal supplier of machinery and boilers or that there are no special requirements to the supplier of foundations; drawings of foundations for outboard engines and propellers;

.14 drawings of support mechanisms, equipment and devices foundations, according to 11.2 of Part II of "Hull" of SV Rules and MNV Rules and 2.13 of Part II of "Hull" of MNV Rules, which are supervised by the Register;

.15 drawings of machine-boiler trunks, coamings, entrances and other guard railing of holes in the hull of the ship;

.16 drawings of superstructures and loggingdeck houses;

.17 drawings of bulwarks;

.18 strength calculations of foundations for mooring and towing gear (*);

.19 drawings of foundations for mooring and towing equipment;

.20 welds control scheme and hull welding table containing the following information:

.20.1 names of the welded elements and their thickness;

.20.2 sign or symbols of edges preparation;

.20.3 marks and categories of base metal;

.20.4 marks and categories of welding materials;

.20.5 welding process and welding seam position.

If listed in .20.1 - .20.5 information is given in full in the drawings of the ship's hull, is allowed not to provide the welding table;

.21 scheme of hull constructions tests for water resistance (combination with the scheme according to 4.2.7.3 is allowed);

.22 drawings of pipelines passes, ventilation ducts, cable lines passages, etc through bulkheads, decks, double bottom, watertight floors and frame ties;

.23 specification of protective coatings under 6.5 of the part "Materials" of SV Rules (for sea and mixed navigation vessels); .24 basic parameters amortization hull protection from damage during mooring (for vessels moored in the sea to other vessels);

.25 subdivision scheme with a smooth hull assembly and welding technology (*).

Description of fundamental process of connecting of the hull parts afloat, developed on the basis of recognized by the Register methods of such works performance (if applicable);

.26 detailed description of the process of hull manufacturing, containing information about materials, methods of forming the hull elements, necessary conditions required for hull building, as well as analysis of the local and overall structural strength (only for vessels of fiberglass);

.27 program of ship propulsion vibration and local hull structures vibration measurements (excluding small crafts);

.28 Loading instruction (for sea going vessels, except vessels of category II less than 90 meters and deadweight not exceeding 30% of the tonnage on summer load-line, and all cargo vessels of mixed river-sea and inland navigation and small crafts) and stability and strength information (booklet) for the carriage of non-grain bulk cargoes of (for sea and mixed river-sea navigation vessels see 1.4.8 Part II «Hull» of SV Rules).;

.29 Stability and strength information (booklet) for the carriage of non-grain bulk cargoes (for sea and mixed river-sea navigation vessels see 1.4.8.7 Part II «Hull» of SV Rules).

4.2.4

Documentation on equipment and supply appliances:

.1 general arrangement drawings of, key parts and components of closures of openings in the hull, superstructure, deckhouses and subdivision bulkheads of the vessel indicating the height and type of coamings closures;

.2 strength calculations of bow and stern ship's hull closures (*);

.3 general arrangement drawings of of mechanisms and executive drives indicating the main parts and components of the steering gear; general arrangement drawings of of the main parts and components of ship active control (SAC);

.4 strength calculations of main parts and components of the steering gear (*);

.5 steering gear efficiency calculations and SAC (*);

.6 general arrangement drawings of of the main parts and components of covers and cargo hatches coamings of dry cargo holds;

.7 strength calculations of cargo hatches covers of dry cargo vessels (*);

.8 calculations of anchor, mooring, towing and coupling device, wing device of hydrofoil vessel, wheelhouse lifting device and also for tugs - steady towing force diagram (*);

.9 general arrangement drawings of main parts and assemblies of anchor, mooring, towing and coupling device, wing device of hydrofoil vessel, wheelhouse lifting device of small vessels, centerboard device with basic data of applicable equipment; .10 calculation of signal masts and rigging and tackle and rigging of ships with sail rigging (*);

.11 drawings of signal masts and rigging and tackle and rigging of ships with sail rigging;

.12 drawings of general location of the main parts and components guard railing;

.13 calculations of basic parts and components for guiding elements of containers in cargo holds (*);

.14 general arrangement drawings of of guide elements for containers in cargo holds with key parts and components; general plans drawings of parts and components of units for the separation of bulk cargo;

.15 drawings of general location and attachment with major parts and components of ladders on the vessel, including the pilot ladders and gangways;

.16 drawings of the general arrangement of the main components and parts transitional bridge on oil tankers;

.17 schemes of escape routes (in the absence of information on the general location drawings;

.18 general arrangement drawings with the main parts and components ofmeans of access to the cargo space area and other facilities for surveys on oil tankers and bulk sea and mixed navigation vessels;

.19 guidance on means of access (for oil tankers and bulk carriers and vessels of mixed navigation);

.20 ship's barges lifting device calculation (*);

.21 general view drawings of the ship's barges lifting device;

.22 emergency supply sheet, indicating of basic technical characteristics and its location on the vessel.

4.2.5

Documentation of lifting devices, see also 1.4 of Rules for seagoing vessels lifting devices:

.1 ship's lifting devices specification (as part of the ship specification according to 4.2.2.1) (*);

.2 general arrangement drawings of lifting devices indicating the main characteristics (type and capacity, load capacity, working areas, boom overboard area, cargo lifting and lowering speed, the maximum and minimum radius, turn speed, etc.);

general view drawings of cargo masts with booms, ship cranes, lifts, elevators and ship lifting platforms, their attachment to ship constructions and hull reinforcements in places of their installation

.3 general drawings of cargo masts and booms, ship's cranes, lifts, elevators and ship lifting platforms, their attachments to ship constructions and hull reinforcements in places of their installation;

.4 drawings (scheme) of rigging and tackle of cargo booms and cranes;

.5 drawings of metal works (cargo masts, booms, bridges, portals, foundations, cranes' supporting-turning device, trunks, cabins and ship guide lifts, platforms and ships' guide lifting platforms, etc.) with the calculations of strength and firmness;

.6 technical documentation on the mechanisms and their drive gears:

- assembly drawings with cuts;
- drawings of cargo shafts, gears and reduction gear pinions and and also shaft couplings (allowed to provide as a part of assembly drawings);
- schematic diagrams of hydraulic installations;
- drawing of foundation frames and hulls with data on welding (allowed to provide as a part of assembly drawings);
- calculations or the results of strength calculations of critical tense parts (*);
- explanatory note or description with the indication of basic technical characteristics (*);
- program of main mechanisms and serial samples test;

.7 technical documentation for electrical equipment:

- operating ɜrinciple and main characteristics (*);
- specification that includes a list of components, devices and materials (*);
- constructive assembly drawings;
- schematic diagram of electric drive;
- test program;

.8 drawings of lifting devices parts with strength calculations or proof of equivalent strength with standard parts that are approved by the Register (concerning calculations (*);

.9 drawings of safety devices (where necessary, with strength calculations) (concerning calculations (*);

.10 drawings of lifting device fastening "stowed for sea";

.11 tension scheme impacting on tight lifting device elements;

.12 calculations or the results of calculations of bearing structures strength and jib cranes and booms on a flexible suspension stability calculations (*);

.13 instructions for work withpaired cargo booms indicating the working area, allowable working load, type, size, and rigging schemes; .

14 test program of lifting device in assembly at the factory and after installation on board.

Technical documentation for cranes, winches, metal framework, parts and safety appliances of cargo lifting devices can be provided separately (independently from the technical documentation for the ship) but specifying the types and purposes of vessels and floating structures, for which they are intended.

4.2.6

Ship equipment documentation.

4.2.6.1

Life-saving equipment and appliances documentation:

.1 location drawings of life boats and rescue boats, life rafts, marine evacuation systems and their launching appliances, primary and emergency lighting of their location and outboard launch area of life-saving appliances and also appliances for embarkation of people in collective life-saving appliances that are at water;

.2 drawings of launching appliances fastening for collective life-saving equipment and rescue boats and means of embarkation into them;

.3 drawings of collective life-saving equipment and rescue boats fastening with display of explanatory (manual) plaque or signs;

.4 location drawings of muster stations and embarkation into collective life-saving equipment stations and lighting, communication and wave protection and protection against ingress of water in collective life-saving equipment facilities;

.5 drawings of location and lashing of individual life-saving appliances of mappingwith display of their packaging;

.6 necessary calculations and data confirming the Register Rules carry out (*).

4.2.6.2

Signal means documentation:

.1 drawings of location, mounting and grounding of signal-distinctive and signal-flashing lamps and also pyrotechnics and sound signal means indicating the main coordinates of their location and the name, type, technical characteristics and number of signaling means.

4.2.6.3

Navigating Bridge documentation:

.1 drawings of navigating bridge planning (for seagoing ships and vessels of mixed navigation) showing:

.1.1 bridge planning, including the configuration and location of all working places on the bridge, including working places to perform additional functions of the bridge with displaying aisle

width sieling height, the height of openings and doors, the distance between the deck plating and the bottom edge of equipment attached to the cieling, and installed separately from the equipment power supplies, heating, ventilation, communication, alarm and lighting devices;

.1.2 configuration and dimensions of working panels;

.1.3 arm-chairs installed for use in the workplaces, specifying the minimum and maximum altitude of regulation and horizontal distances of their movement;

.2 drawing of equipment placement (not less than in two projections).

The drawings should display the location of radio navigation and other equipment at workplace panels and elsewhere on the navigating bridge and beyond, functionally associated with the bridge, wherein the following should be indicated (if available):

.2.1 VHF radio installations;

.2.2 MF or MF/HF radio installation, including the letter printing device;

.2.3 satellite radiocommunication means INMARSAT-C;

.2.4 NAVTEX and extended group call (EGC) receivers;

.2.5 means for identification of ship's and life-saving appliance position for the purposes of search and rescue, radar transponder (RT) of the ship and life-saving appliance automatic identification system transmitter (AIS) of the ship and life-saving appliance (RT-AIS), emergency position identifying radar beacon;

.2.6 VHF radio installations of two-way radio communication and chargers;

.2.7 VHF radio installations of two-way radio communication with planes and chargers (for passanger vessels);

.2.8 Emergency lighting lamp that receives power from the backup source of electricity (GMDSS batteries);

.2.9 charger for backup electric power source (GMDSS batteries);

.2.10 ship security alert system and security alert button for transmitting and receiving (confirming) alert signal;

.2.11 power switchboards for radio and navigation equipment (with protection devices);

.2.12 optical magnetic compass or repeater performance transmission device; spare magnetic compass storage;

.2.13 GNSS transceiver indicator;

.2.14 external sound signals receiving system (ESSRS) (for vessels with enclosed navigating bridge);

.2.15 log and its repeaters;

.2.16 echo-sounder and its repeaters;

.2.17 gyrocompass: pelorus / repeater (for course readings, for direction finding (gyroazimuth);

.2.18 turn speed measuring device and its repeaters;

.2.19 AIS equipment;

.2.20 manual steering control, steering mode switch, ship course/track control system;

.2.21 radars with electronic plotting aids or automatic radar plotting and tracking aids;

.2.22 electronic chart display and information system (ECDIS)

.2.23 long range identification and tracking system (LRIT);

.2.24 Bridge navigation watch alarm system (BNWAS);

.2.25 rotation speed, force and direction of propeller thrust; pitch and operational mode of controllable pitch propellers; rudder angular position; force and direction of thruster indicators;

.2.26 remote video surveillance equipment;

.2.28 whistle/typhon control;

.2.29 main alarm switchboard (devices and indicators emergency alarm system affecting safety of navigation);

.2.30 internal ship communications (equipment for automatic telephone communication, internal radio communications and command microphone station of command-translational unit);

.2.31 propulsion gear control;

.2.32 thruster control;

.2.33 engine alarm switchboard;

.2.34 fire alarm panel of fire detection and aerosol fire-extinguishing system actuation;

.2.35 ventilation emergency stop;

.2.36 cargo alarm panel;

.2.37 alarm switchboard/screen;

.2.38 windows wiping and heating control system; binoculars; signal flags;

.2.39 lighting control buttons;

.2.40 signaling-distinguishing lights turn on indicators and signal lights off alarm (switch);

.2.41 automation equipment on the bridge, see 4.2.14.12;

.3 drawings of visibility areas from navigating bridge (for seagoing ships and vessels of mixed navigation with a maximum length of 55 m or more), including:

.3.1 Sea surface areas of visibility from the places of vessel control (for the said vessels and inland waterway vessels taking into account, if applicable, the caravan of vessels pushed by the vessel-pusher);

.3.2 areas of visibility in the horizontal plane from the vessel control place, including individual shady sectors and the amount of shadow sectors towards the bow of the ship along the arc of the horizon 225^{o} (i.e. straight towards the bow to at least 22.5^{o} abeam on each side);

.3.3 area of visibility in the vertical plane towards the stern of the vessel up to 10^{o} to each side under different draft, trim and location of deck cargo conditions, from the place of vessel control and workplace for navigation and maneuvering, including the line of sight along the top edge of the window from a standing position and the lower edge of the window from a seated position;

.3.4 visibility of ship's side from the navigating bridge wing;

.3.5 location of windows, including slope, size, space between the windows and the height of the upper and lower edges above the bridge deck, and the height of cieling;

.4 list of all equipment installed on the bridge (*) with the name and type.

For self-propelled seagoing vessel and vessel of mixed navigation project documentation associated with the navigating bridge construction, its equipping with radio equipment and navigation systems and other ship equipment should be developed taking into account the Appendix to Part V «Navigational Equipment" of Rules on equipment of sea-going vessels.

For self-propelled sea and mixed sea-river and river-sea navigation vessel with sign **NAV-1** project documentation should be made taking into account the requirements of 1.3.7 and configuration of equipment in accordance with 2.3.23 of Part V «Navigational Equipment" of Rules on equipment of sea-going vessels.

For self-propelled inland vessels with a sign **NAV-1**, which wheel-house is specially equipped to control the ship by one person using radar, project documentation should take into account the configuration of the equipment in the wheelhouse in accordance with section 11 of Part III "Gears, equipment and supply. Signal means" of INV Rules.

4.2.6.4

Radio equipment documentation:

.1 electrical connections circuit of all radio equipment blocks (according to the type-approval certificate). Wherein the following should be reflected (if applicable):

- **.1.1** antennas switching circuit;
- **.1.2** power supply circuit from the main, emergency and backup sources of electricity (GMDSS batteries);
- **.1.3** protection and disconnect devices as well as protection from radio interference;
- **.1.4** connection of chargers;
- **.1.5** connection of receiver-indicator GNSS (GPS / GLONASS / Galileo) to the VHF / MF / HF - radio installations;
- **.1.6** type (brand) and section of cables cores;

.2 block diagram (scheme of electrical connections of all blocks) of command translational device to display the main locations and remote command microphone pstations;

.3 drawing of antennas location (in three projections). Wherein the following should be reflected (if available):

- **.3.1** all transmitting antennas including coordinating device;
- **.3.2** all receiving antennas;
- **.3.3** antennas of satellite communication equipment;
- **.3.4** location free float satellite EPIRB;
- **.3.5** location of external sound signals receiving system microphones;

.4 calculation of the reserve source (batteries) of electrical energy capacity for GMDSS radio equipment supply (*);

.5 calculation of of VHF and HF radio systems range (*);

.6 list of spare parts.

4.2.6.5

Navigation equipment documentation:

.1 electrical connections circuit of all electro navigation equipment blocks (according to the type-approval certificate). Wherein the following should be reflected (if applicable):

- **.1.1** antennas switching circuit;
- **.1.2** power supply circuit from the main, emergency and backup sources of electricity
- **.1.3** protection and disconnect devices as well as protection from radio interference;
- **.1.4** connection of GNSS receiver-indicator (GPS / GLONASS / Galileo) to the VHF / MF / HF - radio installations;
- **.1.5** connection of gyrocompass/long range course transmission unit with other equipment;
- **.1.6** connection to voyage data recorder (VDR);
- **.1.7** type (brand) and section of cables cores;

.2 drawing of antennas location (in three projections). Wherein the following should be reflected (if available):

.2.1 all signal transmitting and receiving antennas;

.2.2 Radar antennas (indicating the rotation radius of the antenna and any cargo or ship structures (masts, booms, containers, etc.) that can interfere with radio waves or degrade radar performance);

.2.3 of GNSS receiver-indicator antennas;

.2.4 location of main / auxiliary magnetic compass;

.2.5 location of voyage data recorder special protective container (capsule);

.3 list of information (data) that is recorded by voyage data recorder, indicating the format and the data source (equipment, sensors) (if applicable) (*);

.4 list of spare parts.

4.2.7

Stability and maneuverability documentation (*) (except the following documents):

.1 theoretical drawing, theoretical drawing table of coordinate;

.2 hydrostatic curves;

.3 squares curves and frames static moments;

.4 calculations and cross-curves of stability with hull volumes volume draughts, which are considered;

.5 summary table of displacement, center of gravity position, trim and primary stability for various load options;

.6 computational materials related to the verification of vessel's stability according to Rules: mass tables for various vessel load options indicating the stowage of cargo, fuel, fresh water and liquid ballast in tanks; calculations of pitching amplitudes and weather criteria; sails schemes and calculations of heeling points; roll calculations of accumulation and circulation of passengers; icing calculations (if necessary) with regard to construction and equipment of the vessel, providing effective protection against icing (if any), flooding angles, amendments to the effect of liquid cargo and supplies free surface, and so on; layout of deck cargo;

.7 static diagrams and, if necessary, dynamic stability calculations, permissible moments calculations and summary table of stability test results as required by the Rules, for different load options (summary table is allowed to formed in the Stability information);

.8 stability calculations during loading, unloading and stowage of non- grain bulk cargos (for ships carrying such loads);

.9 additional technical documentation for ships, engaged in carriage of grain in bulk:

.9.1 calculation and curves of volumes of cargo spaces and center of gravity positions depending on the space filling level;

.9.2 calculation and heeling moments curves through shift of grain (if equipment that limits the shift is available, and without it) depending on the filling of compartment for joint and separate loading of cargo spaces;

.9.3 diagram or vessel's stability control table on heeling moments limit value and calculations, which the table is based on (may be submitted with the approval of information about the vessel's stability when loading grain);

.9.4 estimated materials on the typical grain loading plan (stowage of supply, ballast and cargo, the calculation of load, stability test calculations, calculations, which are the grounding for recommendations on ballasting, etc.). Calculations are made for the ship at the beginning and end of the voyage and, where necessary, for the most unfavorable intermediate state;

.9.5 drawings of equipment for carriage of grain, if it is installed, along with calculations of strength (stamp of approval);

.9.6 vessel strength test calculations for the case of uneven load on the length of the vessel;

.10 program of model tests and experimental studies of stability in the transitional and operational modes of hydrofoils navigation;

.11 calculations and experimental program, if necessary modeling, research and stability tests in driving mode of the hovercraft;

.12 program of field maneuver trials under the Guidelines on determining the maneuvering characteristics of the vessel (for vessels of 100 meters or more in length and chemical carriers and gas carriers built on 01.01.2004 and after that date, except high speed crafts, and according to the requirements of the Rules on maneuvering characteristics and for other vessels and vessels convoys (for other vessels and vessels convoys maneuvering test program can be part of the sea trials of the vessel or vessels convoys according to 4.3) (stamp of approval);

.13 testing program to assess the stability and floodability of vessels (for small crafts in accordance with 1.3.5 of IV «Stability, floodability and freeboard" of SC Rules (stamp of approval);

.14 solid ballast stowage sceme (if ballast is available) (stamp of approval);

.15 stability information(preliminary) (stamp of approval) and estimated materials if these materials are not included in the documentation submitted under 4.2.7.1-4.2.7.9 or require correction based on the results of heeling test (*) concerning estimsted materials). For non seagoing vessels preliminary information on the stability and floodability is compiled (combined with information on 4.2.8), which for small crafts may include as a separate section of the Manual for the owner. For sea vessels is allowed to introduce stability information as into Damage stability and stability or Information on the effects of compartment flooding according to 4.2.8. For final approval of Stability information and Stability and floodability information, if required, Ship heeling test protocoland corrected, if necessary, information taking into account the results of the above test is provided;

.16 ship stability information when loading grain (for ships, engaged in carriage of grain in bulk) (stamp of approval). For approval of Ship stability information when loading grain, except documentation specified in 4.2.7.9, the protocol of ship heeling test, taking into account the results of which the information is compiled, must provide;

.17 information about the place of shelters (for vessels with signs of navigation area restriction: R3-S, R3-RS, B-R3-S, B-R3-RS, C-R3-S, C-R3-RS, D-R3-S, D-R3-RS, R3, R3-IN, B-R4-RS, R4-RS).

4.2.8

Subdivision documentation (*), except below listed documents):

.1 subdivision scheme of the vessel showing location of all watertight structures and openings indicating the type of closure, and the location of devices for the damaged ship heel and trim alignment;

.2 materials on the probabilistic assessment of the vessel subdivision with subdivision indexes calculation (if required);

.3 damaged ship stability and stability calculations, including static stability diagrams;

.4 cross-curves of stability (for damaged ship), if it is necessary in the adopted method of emergency stability calculation;

.5 calculations of overflows sections and time of ship straightening;

.6 angular points coordinate table of compartments and tanks;

.7 Project of emergency alarm system sensors installation for signaling in case of compartments flooding of passenger, bulk or cargo ship with one hold and less than 100m, as defined in Part V «Subdivision" of SV Rules. The project should at least include:

technical description of emergency alarm system ;

emergency alarm system type approval certificate ;

single-line diagram of the emergency alarm system indicating location of equipment on the general ship scheme (stamp of approval);

documents indicating the location of mounting, protection and test methods emergency alarm system (stamp of approval);

description of the procedures necessary for the performance in case of failures in the emergency alarm system;

requirements on technical maintenance of emergency alarm system equipment;

.8 Damage stability and stability information (preliminary) (stamp of approval), see also 4.2.7.15, and calculated materials on the basis of which it is composed, according to 4.2.8.3, if these materials accompanying the Information or require corrections (*) concerning calculated materials).

Damage stability and stability information, if necessary, is corrected, taking into account initial stability clarification upon the results of heeling test and, if necessary, ship trials.

Information on compartment flooding effect (for sea dry cargo ships with length L'1 <80 m, see 1.4.9 Part V «Subdivision" of SV Rules (instead of Damage stability and stability information);

.9 Damage control scheme (for sea vessels).

4.2.9

Freeboard assigning documentation:

.1 Freeboard calculation (for sea vessels and ships engaged in international voyages, mixed river-sea navigation - Register forms 1.11.2 and 1.11.2.1) (*) and the drawing of load line (except in respect of load line drawing for small crafts less than 10m of 3 -5 coastal navigation areas);

.2 drawings of draft marks and draft scales (for inland navigation vessels) and draft scales for small crafts longer than 6.0 m;

.3 drawings of the general location of openings and closings that provide watertightness of outer restrictive construction of the vessel (outer doors, cargo hatches, service hatches, bow, side and stern doors and apparel; skylights and windows, storm scuppers and porticos, sea connections of seawater, sewage, plumbing, etc.; air pipes and vent heads, ventilation ducts covers, machinery spaces skylights and so on (can be used drawing according to 4.2.4.1 with completing it with the necessary information (drawings) (*);

.4 terms of freeboard assignment (for sea vessels and vessels engaged in international voyages of mixed river-sea navigation - Register form1.11.1) (*);

.5 drawings of stowage and fastening timber deck cargo (if carried and timber freeboard assignment);

.6 data on the safety of crew and passengers (bulwarks, lrailing, bridges and transitional passages, etc. (see 4.2.9.4) (*);

.7 Damaged stability and stability calculation of vessel with flooded compartments (for sea and mixed river-sea navigation ships with reduced freeboard) (*).

In determining the freeboard the following documentation is used or submitted:

- theoretical drawings (according to 4.2.7.1);
- general arrangement drawings (according to 4.2.2.2);
- determination of hull structures ligatures (according to 4.2.3.1);
- strength calculation of dry of cargo vessels cargo hatches covers (according to 4.2.4.7);
- stability information (according to 4.2.7.15 after correction, if necessary);
- loading instructions (if required by applicable rules) (according to 4.2.3.28 or 4.2.3.29).

4.2.10

Fire protection documentation:

.1 documents from constructive fire protection;

.1.1 drawings of fire protection structures location including doors and passes (cuts) in these structures, indicating the categories of premises in accordance with:

- for sea ships - 2.2.1.3, 2.2.1.5, 2.3.3 or 2.4.2 of Part VI «Fire protection» of SV Rulesf SV Rules;
- for vessels of mixed sea-river navigation - 2.2.1.3, 2.2.3.2.1, 2.2.3.2.2 i 2.2.3.2.6 of Part V «Fire protection» of MNV Rulesf SV Rules,

and also the number of certificates for the door and aisle seats design type approval, (cuts);

.1.2 schemes or insulation description, sewing, cladding, decks plating and other finishing materials indicating the numbers of certificates of material type approval issued under the Code on fire test procedures (see : for sea vessels - 1.6 and 2.1.1.5 - 2.1.1.9 of Part VI "Fire protection" of SV Rules, for vessels of mixed river-sea navigation - 1.6, 2.1.1.1 and 2.1.1.6 - 2.1.1.8 of Part V «Fire protection" of MNV Rules, for inland waterway vessels - 1.2 and 2.2 of Part V «Fire Protection " of INVRules; for small crafts - 1.2 and 2.2 of Part X" Fire protection" of SC Regulation);

.1.3 calculations (*) as required:

- for sea vessels – in 2.1.1.4 i 2.1.1.10 of Part VI «Fire protection» of SV Rules;
- for vessels of mixed river-sea navigation - in 2.1.1.4 of Part V«Fire protection" of MNV Rules);
- for inland navigation vessels - in 2.2.10 of Part V «Fire protection" of INV Rules)
- for small crafts - in 2.2.10 of Part X "Fire protection" of SC Rules;

.2 schematic diagrams of fire extinguishing systems and, if applicable, smoke detection by air sampling with calculations and other data that confirm carry out of requirements of parts «Fire protection» of appropriate SV Rules, MNV Rules, INV Rules and SC Rules) (*) concerning calculations);

.3 drawings and schematic diagram of the location of household LPG installation (if any);

.4 fire supply sheet (*).

.5 construction drawings of units and parts of fire protection structures showing documents on conduct fire tests required;

.6 construction drawings of isolation, sewing and deck platings;

.7 location drawings of fire appliances and emergency breathing devices;

.8 spare parts and tools sheet (*);

.9 calculations on fire extinguishing systems (*);

.10 construction drawings of fire extinguishing systems and fire alarm with drawings of units and equipment;

.11 location drawings of heating equipment that runs on liquid or solid fuels, indicating the structural insulation junction of hull structures, funnels;

.12 preliminary fire plan (*) according to 1.4 of Parts V i VI «Fire protection» of MNV Rules and SV Rules respectively (for sea and mixed river-sea navigation vessels) (stamp of approval is placed on completion of vessel construction).

For inland navigation vessels and small crafs fire plan is provided; for passenger vessels of inland navigation safety plan is submitted (instead of fire protection plan). For inland navigation vessel, concerning the content of fire plan, see. 1.4 and for passenger ships, concerning the content of fire plan, see 7.7.1 of Part V «Fire protection" MNV Rules;

.13 calculations of thermal emission from the flame, which can occur during a fire affecting the fuel tank with gas, and other equipment and spaces associated with gas fuel (*) (for vessels with bi-fuel engine (with sign GFS in class symbol).

Note. In case of complex supply of carbon dioxide fire extinguishing equipment, aerosol fire extinguishing systems and stationary systems of local application appropriate schematic diagrams, drawings and calculations according to 4.2.9.2, 4.2.9.9 and 4.2.9.10 for specified systems is allowed to provide as a part of documentation in accordance with 4 of Part 4 "Technical supervision over manufacturing of products for vessels " of Rules for technical supervision over the construction of ships and manufacture of materials and products.

4.2.11

Mechanical and boiler installations documentation:

.1 drawing the general location of mechanisms, boilers and equipment in the machinery spaces (for sea and mixed river-sea navigation vessels in machinery spaces of category A, see 1.2 of Part VII «Mechanical installations" of SV Rules) and emergency diesel generators rooms indicating passageways and escape routs;

.2 installation drawings on foundations and assemblies mounting and main mechanisms grounding, shaft bearings and boilers;

.3 location and description (concerning description of the (*) key mechanisms remote control with information on equipping indication and alarm control units remote control stations, with communications and other devices.

Note. In case of complex supply of key mechanisms remote control with the main engines and / or steering columns, specified diagram and description may be provided as a part of documentation in accordance with 12 of Part 4 "Technical supervision over manufacturing of products for vessels" of Rules for technical supervision over the construction of ships and manufacture of materials and products;

.4 equipment location drawings of fuel and lubricant tanks;

.5 location drawings of fuel tanks indicating the distance from the side plating and bottom to the tanks; drawing of supports and other structures that provide mounting and restrict movement of fuel tanks (for vessels with bi-fuel engine (with sign **GFS** in class symbol).

Notes:

1. Regarding LNG fuel tanks (tanks for storing liquefied gas fuel) technical documentation to the extent required for the approval of cargo tanks for the transport of LNG gas carriers in accordance with the Rules for classification and construction of vessels for the transportation of Liquefied Gases in Bulk and the International Code of construction and equipment of ships carrying liquefied gases in bulk must be submitted.

2. With respect to CNG fuel tanks (compressed gaseous fuels storage tank) technical documentation to the extent required for the approval of cargo capacity for CPG carriage by gas carriers in accordance with the Rules for classification and construction of vessels for the transportation of compressed natural gas must be submitted. If the standard cylinders are used, then the calculation of allowable pressure is provided;

.6 shaft documentation :

.6.1 general shafting drawings;

.6.2 drawings of stern tube and stern tube device parts, including seals, drawings casing protecting space between the stern tube and propeller hub;

.6.3 stern tube bearings and stern tube sealing devices lubrication and cooling schemes;

.6.4 shafts drawings (propeller, intermediate, thrust);

.6.5 drawing of shufts connections and shafts couplings;

.6.6 drawings of shaft lines carrier and thrust bearings and their attachment to the foundation;

.6.7 shafts and details of their connections strength calculation (*);

.6.8 calculation of shafting supports quantity, their location coordinates and loads that are perceived by supports (*);

.6.9 shafting alignment parameters calculation (*);

.6.10 calculation of propeller and shaft lines connecting sockets alignment (*);

.6.11 calculations on torsional vibrations in accordance with the requirements: for sea and the mixed river-sea navigation vessels - of section 8 of Part VII «Mechanical installations" of SV Rules, for inland navigation vessels - of section 8 of Part VI «Mechanical installations" of MNV Rules and for small crafts - 2.11 of part V «Mechanical installations. Mechanisms. Systems and pipelines " of SC Rules (*). In some cases axial and bending fluctuations calculation may be required (in accordance with the requirements of Section 5 of Part VII «Mechanical installation" of SV Rules).

Note. In case of complex delivery of controllable pitch propeller with a propulsive installation documentation, specified in 4.2.10.6.2- 4.2.10.6.11 is allowed to be provided as a part of documentation in accordance with 6 of Part 4 "Technical supervision over manufacturing of products for vessels" of Rules for technical supervision over construction of vessels and manufacturing of materials and products;

.7 main mechanisms power calculation for ships of ice navigation of categories Ice2-Ice6 accordance with requirements of 2.1 of part VII «Mechanical installations" of SV Rules to minimum ships' propeller shafts power value (for sea and mixed river-sea navigation vessels) (*);

.8 documents and for propeller and other screw driver (for drives that are not covered by the Rules for documentation is set in consultation with the Register in each case):

.8.1 propeller general drawings;

.8.2 propeller blade strength calculation and for screws with removable blades and controllable pitch propellers (CPP) - the calculations of fixing the blades to the nave (*).

Note. Specified calculation may be provided as a part of documentation in accordance with 7 Part of 4 "Technical supervision over manufacturing of products for vessels" of Rules for technical supervision over the construction of ships and manufacture of materials and products;

.8.3 drawings of blades, nave, radome, and details of their attachment (for propeller with detachable blades and CPP);

.8.4 drawings of the propeller mounting to the propeller shaft; .8.5 description of a pitch change and RP control (*);

.8.6 schemes of a pitch and RP control change;

.8.7 drawings of a pitch change mechanism (PCM) in assembly (*);

.8.8 drawings of PCM main parts, including shaft, hydraulic cylinders, power rods, pistons, sliders, axle boxes to collect input grease, oil supply pipes to the cylinder in nave.

Note. Documentation, specified in 4.2.11.8.3-4.2.11.8.8, is allowed to be provided as a part of documentation in accordance with 7 Part of 4 "Technical supervision over manufacturing of products for vessels" of Rules for technical supervision over the construction of ships and manufacture of materials and products;

.9 general drawings of the airscrew, naved and water-jet propulsion, paddle wheels, propeller fans to create air cusion and their calculations (concerning calculations(*);

.10 documents for ship active control means (SAC):

.10.1 drawings of SACM installation and mounting;

.10.2 information confirming that construction of SAC complies with operating conditions (*);

.10.3 general drawings with necessary cuts and seals junctions;

.10.4 calculations of propeller (or water cannons impeller), shafts, couplings, gears and driving gears, columns, water cannons and thrusters (if PR is used - see. 4.2.11.8) (*);

.10.5 drawings of propeller (or water cannons impeller), shafts, couplings, gears and driving gears, columns, water cannons and thrusters (if PR is used - see. 4.2.11.8);

.10.6 strength calculations of rotor driving shaft, blade, vaned drivers transmission (*);

.10.7 Ddrawings of shafts, gears, rotors, blades and vaned drivers' blades turn mechanisms;

.10.8 drawings of bearings and seals;

.10.9 connections calculations, drawings propellers nozzles and tunnels with information about allowable clearance between the propeller and the tunnel (nozzle) in assembly (*);

.10.10 hull parts drawings and drawings of reverse-steering devices, water cannons;

.10.11 schemes of cooling, lubrication, steering columns hydraulics (RP blades) systems and data on these systems pipelines;

.10.12 calculations of the electric drive for electro driven SAC (*);

.10.13 Scheme of the electric drive for electro driven SAC;

.10.14 documentation for control, management and protection system;

.10.15 calculations of torsional vibrations (for main SAC and dynamic positioning systems) and life for bearings (*).

The Register may additionally require calculations of current and pendulum vibrations for rudder propellers in case their use as main SAC (*);

.10.16 SAC specification, including its main characteristics and the main parts and components materials specification(*);

.10.17 program of test and main samples tests;

.10.18 description, operation and maintenance manual (*).

Note. Documentation specified in 4.2.11.10.3-4.2.11.10.18 is allowed to submit as part of documentation in accordance with 7 of Part 4 "Technical supervision over manufacturing of products for vessels" of Rules for technical supervision over the construction of ships and manufacture of materials and products;

.11 steering column (outboard motors) remote control scheme;

.12 calculation of allowable maximum power of the main engines (for small crafts under 2.3 of Part V «Mechanical installations. Mechanisms. Systems and pipings" of SC Rules (*);

.13 spare parts sheet;

.14 documentation for refrigerators (see .5.3).

Note. Documentation according to 4.2.11.6, 4.2.11.8-4.2.11.10 should contain data on the processing and geometry ща working surfaces, heat treatment, connecting parts tolerances, hydraulic testing, nondestructive testing, etc..

4.2.12

Systems and pipelines documentation:

.1 documents for general ship systems:

.1.1 scheme of drainage system;

.1.2 scheme of ballast system;

.1.3 scheme of heel and trim systems and devices (automatic and manually controlled) to align emergency stability of the ship by counter flooding;

.1.4 scheme of air, measuring and overflow pipes, installations of liquids level indicators, remote level measurement in fuel tanks, cargo and drain tank of oil tankers;

.1.5 schemes of ventilation and air conditioning systems of living, working, cargo, machinery and industrial spaces with marking of waterproof and fire bulkheads, fire dampers location and indicating ventilation channels and holes closures;

.1.6 scheme of sewage and household water and scuppers with indicating watertight bulkheads, freeboard deck and distances from the freeboard deck or waterline to drain holes in the shell plating;

.1.7 scheme of heating and blowing of seachests, side fitting heating, liquids (cargo) heating in tanks, tanks steaming;

.1.8 scheme of compressed air for typhons systems, for blowing kinhstonnyh boxes;

.1.9 scheme of hydraulic and pneumatic drive mechanisms and devices system;

.1.10 schemes of systems: cargo, stripping, cargo vapor discharge, inert gases, vapor (for oil and combined vessels);

.1.11 scheme of the organic coolant;

.1.12 calculations of systems, drainage, ballast, cargo vapor deliveryischarge, inert gases, spaces ventilation: machinery of category A and ADG, refrigerated, foam-extinguishing stations and surround fire suppression, hangars for helicopters, battaries, cargo pumps, enclosed spaces and holds intended for transportation of vehicles and moving vehicles and dangerous goods, and others, for which the Rules require to ensure the regulated exchange of air (*);

Note. For vessls with bi-fuel engine (with a sign GFS in the class symbol) documentation according to 4.2.12.1.1, 4.2.12.1.2, 4.2.12.1.5 and 4.2.12.1.12 should reflect:

.1 schemes and calculations of ballast and drainage systems in gas dangerous spaces;

.2 scheme and calculation of ventilation in gas dangerous spaces;

.3 scheme and calculation of the vapor system.

.2 documents for mechanical installations system:

.2.1 scheme of fresh and exhaust steam;

.2.2 scheme of blowing boilers, machinery and steam piping; .2.3 scheme of feedwater and condensate systems;

.2.4 scheme of fuel system and ship helicopters fueling system, with a flashpoint below 43 ° C.
For vessls with bi-fuel engine (with a sign GFS in the class symbol):

.2.4. 1 drawings and schemes of systems and piping for gaseous fuels showing these units as expansion joints, flange connections, valves and control valves, drawings of fuel gas system quick-closing devices, schemes of systems of gas fuel preparation, heating and pressure control, pipelines, containing gas fuel at a temperature below minus 110 ° C, stress calculations;

.2.4.2 drawing of safety and vacuum valves of gaseous fuels storage tanks(GFST);

.2.4.3 drawings and description (concerning description (*) of all systems and devices to measure the quantity and characteristics of the fuel and gas leak detection;

.2.4.4 scheme of control and regulation of temperature and pressure of gaseous fuel;

.2.4.5 data on the properties of gas fuel, intended for use on the vessel;

.2.5 lubricating system scheme;

.2.6 seawater and fresh water cooling systems schemes;

.2.7 compressed air system scheme;

.2.8 exaust pipes and funnels scheme;

.2.9 drawings of seachests and ice boxes with equipment;

.2.10 starting air system calculation (*);

.2.11 emergency diesel generator fuel service tank volume calculation (*);

.2.12 drawings of mufflers and spark arrester of gas exausting pipes and funnels (is allowed to submit as a part of documentation in accordance with 8 of Part 4 of "Technical supervision over manufacturing of products for vessels" of Rules for technical supervision over the construction of ships and manufacture of materials and products);

.2.13 drawings of location and mounting of bottom and side fittings, and collision bulkhead fittings;

.2.14 drawings of air and ventilation pipes on the exposed parts of the deck;

.2.15 drawings of pipes and ventilation ducts passage through watertight bulkheads and fire constructions, decks and platforms (can be combined with drawings according to 4.2.3.22);

.3 calculation of allowable loading and unloading speed of cargo system of type C and N tankers (*).

.4 documentation according to 4.2.12.1 and 4.2.12.2 must include data on the size of pipes (diameter and wall thickness) pipeline construction (materials, insulation, manufacturing technology, installation, hydraulic tests, etc., as well as applicable data for pipes materials, gaskets materials and types of pipe connections.

4.2.13

Electrical equipment documentation:

.1 schematic diagrams of generation and distribution of electricity from the main and emergency sources: power systems, lighting (to group boards) and distinctive-signal lamps;

.2 schematic diagrams and a general view of the main and emergency switchboards, control panels and other switchboards of non-typical kind;

.3 results of calculation of the required power plant of the ship capacity, including storage (solar) batteries as the main power source for small vessels, to provide regulated by the rules modes of operation, and grounding of choice of number and power of generators and / or storage (solar) battaries capacity and calculation of emergency source of electrical energy power (*);

.4 calculation results of cables section with their types, currents and protection (*);

.5 principal or deploy circuits of main current, excitation, control, monitoring, alarm, protection and blocking of electrical propulsion gear;

.6 results of calculation of the required propulsion gear generators power for the operation in all modes (*);

.7 results of calculation of short circuit currents and analysis ща selective properties of protective devices for plants with a rated current generators or parallel working generators above 1000 A (*);

.8 results of rooms and spaces illumination calculation (*);

.9 schematic diagrams of external connections of the ship control devices, electric machinery telegraph; telephone service; an emergency alarm, fire detection alarm; volumetric fire-extinguishing system starting alarm; watertight and fire doors closure alarm; machinery spaces alarm; machinery watch alarm system; water ingress alarm in the cargo holds of bulk cargo ships, passenger ships having on board 36 and more persons, cargo ships with one holds, which are non-bulk vessels; stationary fire extinguishing system local unit starting alarm.

For vessls with bi-fuel engine (with a sign GFS in the class symbol) schematic diagrams of electrical systems of measurement and alarm equipment associated with the use of gaseous fuels;

.10 schematic diagrams of electric driving units of the equipment for critical application and electrical protection systems, remote controls and alarm systems.

For vessls with bi-fuel engine (with a sign GFS in the class symbol) schematic diagrams of electric drives and control systems of fuel preparation systems, ventilation and air explosive premises gateways;

.11 electrical machinery and main electrical machinery air cooling system lubrication scheme;

.12 protective grounding schemes, drawings and, where necessary, calculations lightning arrester appliances for oil tankers, gas carriers, rigs and vessels with non-metallic hulls and for small crafts (concerning calculations (*);

.13 schematic diagram of the cable indicating the areas through which it passes;

.14 the results of calculation of batteries for emergency lighting capacity, distinctive-signal lights, emergency fire alarm, volumetric fire-extinguishing, emergency diesel generator starting devices (*);

.15 the results of previous calculations nonsinusoidality voltage ratios at different parts of the vessel network in the case of power semiconductor devices use(*);

.16 for electrical equipment installed in hazardous areas, areas and spaces indicating therein: names of equipment, compartment or room where it is installed (indicating the area), type of (performance) explosion protection (*);

.17 calculation of expected performance of generating units protection from overload by disconnecting consumers with substantiation of the number of stages and turning off the list of consumers who are disabled, in each stage (*);

.18 scheme and drawing of shutdown and electrical equipment lock system that is not used during operations oil-recovery vessel during the rectification of oil spills;

.19 instructions for preparation and operation of oil-recovery vessel electrical equipment during the rectification of oil spills, which determines the order of compulsory disconnection and blocking of electricity consumers who do not have certificates of explosion-proof (*);

.20 location drawings equipment and cabling in hazardous areas and spaces. Documentation (Certificates competent authorities), which confirms the possibility of using explosion-proof electrical equipment in hazardous areas and spaces;

.21 documentation for stationary and portable instruments for measuring and signaling of hazardous concentrations of gases;

.22 calculation of voltage dips when switch on the consumer that has the largest starting power (*);

.23 list of measures to ensure the electromagnetic compatibility of technical means of the vessels (*);

.24 Failure Mode and Effects Analysis (FMEA) for all electrical and hydraulic components of submersible rotary electrical engine that is used as part of the steering unit (is allowed to submit as a part ofdocumentation in accordance with 7 of Part 4 of "Technical supervision over manufacturing products for vessels" of Rules for technical supervision over construction vessels and manufacturing of materials and products) (*);

.25 electrical connections circuits (for systems and equipment according to 4.2.13.1, 4.2.13.2, 4.2.13.5, 4.2.13.9, 4.2.13.10, 5.3.1.1.12) indicating the types of cables and schemes of all elements installation;circuits of electrical signal-distinctive and flashing lights and electrical sound signal means connections;

.26 drawings of cable lines laying and their passes through water-proof, gas-tight and fireproof bulkheads, decks and platforms indicating means to prevent interference into radio reception.

For vessls with bi-fuel engine (with a sign GFS in the class symbol) - drawings of cable lines laying in hazardous areas and gas dangerous spaces;

.27 drawings of main and emergency accomodation lighting and location of critical devices, escape routes, places of embarkation into life saving appliances on deck and overboard (from group switchboards);

.28 drawings of general location and installation of appropriate purpose electrical equipment and electrical propulsion gear.

For vessls with bi-fuel engine (with a sign GFS in the class symbol):

.28.1 grounding of electrical equipment fitness (*);

.28.2 location drawing electrical equipment associated with the use of gaseous fuels;

.29 constructive assembly drawings (only for non-standard devices): of the main and emergency switchboards, boards and panels of electric propulsion gear, and remote control stations, special panels, lighting and power distribution boards;

.30 scheme of external connections and drawing location and installation of devices for measuring non-electrical values (level meters, pressure, temperature, etc.);

.31 explanatory note with grounding of sign EPP (if applicable) in the class symbol(*);

.32 for vessls with bi-fuel engine (with a sign GFS in the class symbol) - drawing of electrical equipment, cables, pipes, installed in gas dangerous spaces grounding;

.33 drawing of lightning arrester applliances;

.34 spare parts sheet.

.35 If classification of the refrigeration unit is provided, the above documentation must take into account available electrical equipment of the refrigeration unit.

4.2.14

Automation documentation:

.1 list of systems, devices and automation elements, their technical description indicating the purpose and principle of action (*);

.2 principles and functional schemes of emergency alarms system (EAS), centralized control system, computer and integrated control systems and EAS, including the power scheme;

.3 list of monitored parameters indicating the types of instruments;

.4 technical documentation on the main engines remote-automatic control system (RAC) and RP: functional and schematic diagrams, RAC faceplates showing all devices, RAC power scheme, protection scemes, main engines and RP alarm and indication system;

.5 Principles and functional schemes of automation of the main engines (cooling systems, lubricants, fuel preparation, etc.) indicating instrumentation, power schemes, protection, alarm and parameters indication;

.6 technical documentation on automation of auxiliary engines and power plant: fundamental and functional circuits, power plant remote control faceplates with an indication of instrumentation, schemes of power supply, protection, alarm and indication of auxiliary engines and generators;

.7 technical documentation on automation of boiler system: principles and functional circuits, remote control faceplates specifying instrumentation, schemes of power supply, protection, alarm and indication of boiler plant parameters;

.8 principal and functional schemes of starting air compressor automation including protection, alarm and indication schemes;

.9 principal and functional schemes of automation and remote control of drainage and ballast systems, alarm and indication power supply schemes;

.10 principal and functional schemes of remote measuring of levels in tanks;

.11 drawings of panel faceplates and systems control and alarm boards in the central control room (CCR) and on the bridge with indication of all devices;

.12 general location drawings of automation equipment in the CCR and on the bridge;

.13 failure Mode and Effects Analysis (FMEA) for dynamic positioning systems on ships with signs **DP2** or **DP3** in class symbol (*);

.14 installation and structural drawings systems and automation devices, sensors, detectors, instruments and switchboards and control panels .

.15 principal and functional schemes of automation systems, supervised by the Register and listed in the relevant parts of the Regulations, but not mentioned above;

.16 explanatory note with background of automation sign in class symbol (*).

.17 spare parts list for individual automation systems.

Note. Documentation specified in 4.2.14.4-4.2.14.8 and 4.2.14.13 and 4.2.14.14, is allowed to submit as a part of documentation in accordance with 12 of Part 4 "Technical supervision over manufacturing of products for vessels" of Rules of technical supervision over the construction of ships and manufacture of materials and products.

4.2.15

Documentation on the Prevention of Pollution from Ships:

4.2.15.1

For sea and mixed river-sea navigation vessels the following is submitted:

.1 general ship technical specification as part of the ship specification according to 4.2.2.1, and an explanatory note on the carry out of requirements of MARPOL 73/78/97, Technical Code for NOx, the International Convention on the Control of Harmful Anti-fouling Systems on Ships (*);

.2 layout of equipment and devices for the prevention of pollution from ships, including collection tanks / reservoirs and removable devices for garbage collection;

.3 calculations of capacity: tank / hold bilge tanks and oil residues (oily sludge) generated in machinery spaces; collection tanks / sewage tanks; garbage collection appliances (*);

.4 calculation of the sewage discharge rate; calculation of the untreated sewage discharge with the approved by the Administration maximum disharge rate (*);

.5 schemes of systems / pipelines: hold bilge water and oil residues (oily sludge) generated in machinery spaces; burning oil residues (oily sludge), if available on the vessel; marine oily water cleaning installations on 15 million^{-1}; sewage on the ship; removal and delivery of sewage into receptacle facilities;

.6 for oil tankers in addition to the documents referred to in 4.2.15.1.1 - 4.2.15.1.5:

- calculation of slop tanks and segregated ballast tanks capacity (*);
- calculation of the cargo tanks length (*);
- layout of all tanks on the vessel;
- calculation of conditional hull damages and the alleged oil spill (*);
- calculations of stability in intact condition and booklet on the balance and stability (for combined vessels with additional operational procedures for operations on pumping fluids (according to 3.1.11 and "Requirements to vessels construction and their oil pollution prevention equipment" of Regulations for the Prevention of Pollution from Ships) (concerning calculations (*);
- scheme of subdivision, calculations of emergency stability and information on loading and stowage of cargo and the emergency stability (according to 3.1.12 Part I "Requirements to vessels construction and their oil pollution prevention equipment" of Regulations for the Prevention of Pollution from Ships) (concerning calculations (*);
- vapor collection system scheme;

- emergency oil pumping scheme;
- tanks crude oil washing scheme and shady chart (if applicable), small diameter pipeline scheme;
- discharge holes layout;
- scheme of cargo tank cleaning and dirty ballast residue and wash water pumping from the cargo tanks to slop tank system; sceme of pumping and discharge of oil residues;
- schemes of automatic measurement, registration and oil discharge control system of ballast and wash water.

.7 for ships carrying noxious liquid substances in bulk, in addition to the documents referred to in 4.2.15.1.1-4.2.15.1.5:

- pump room location scheme;
- scheme of cargo tanks ventilation system;
- scheme of system for unloading cargo and system of noxious liquid substances discharge with location of drain holes;
- program for determining the quantity of residues of noxious liquid substances that are not pumped (in tanks, pumps, pipelines);
- scheme of tanks wash and discharge of wash water.

.8 drawings of tanks for oily waste, sewage collecting tanks , removable devices for garbage collection and their equipment (can be provided as a part of working drawings and drawings of built in tanks - as a part of hull constructions drawings);

.9 Sheme of collection tanks heating systems;

.10 Description of the integrated ship oily bilge water treatment system(*);

.11 description of the fuel oil tank protection (*);

.12 description of the construction and list of ship's equipment for oil spill protection (*),drawings of guarding, working platform, drainage systems with tanks;

.13 scheme of exhaust gas cleaning system in accordance with the Technical Code on NO_x;

.14 drawings of selective recovery chamber with catalytic recovery unit and reductant injection system (for diesel engines equipped with selective recovery system);

.15 lists:

.15.1 equipment containing ozone-depleting substances;

.15.2 ozone-depleting substances - refrigerant applied in industrial and domestic refrigeration equipment;

.15.3 ozone-depleting substances extinguish fire (gallons) used to extinguish fires on board;

.16 principle circuit of equipment electrical supply and scheme of management, control, display, alarm and protection ship's pollution prevention systems(without shemes of the equipment);

.17 Technical documentation on ship energy efficiency design index (EEDI) and the calculations EEDI required (for vessels with a gross tonnage of 400 or more of types: bulk carrier, gas carrier, tanker, container ship for the transportation of general cargo, refrigerated vessel, combined ship, Ro -Ro cargo ship, Ro-Ro cargo ship (ship for carriage of vehicles), passenger ro-ro vessel, other than vessels with diesel-electric, hybrid and turbine units, as well as for cruise passenger vessels with non-traditional propulsion gears, including vessels with diesel electric, and hybrid turbine installations) and attained energy efficiency index for specified types of ships and passenger ship, except that ship with diesel-electric, and hybrid turbine installations;

.18 description Anti-fouling Systems in accordance with 1.3.4 of Part VI Regulations for the Prevention of Pollution from Ships;

.19 documents, approved by the Register, required on board before issuing appropriate certificates

confirming compliance with the requirements of the Rules on prevention of pollution from ships or international certificates which confirm compliance with the requirements of MARPOL -73/78/97 and AFS International Convention:

.19.1 Ship oil pollution emergency plan (for oil tankers of 150 gross tonnage or more and vessels that are not oil tankers of 400 gross tonnage or more);

.19.2 Ship sea pollution with noxious liquid substances emergency plan (for a ship with a gross tonnage of 150 or more, for which a certificate for the transportation of hazardous liquid substances in bulk is issued).

Named plan may be combined with a plan to .3.1 for specified in it ships with the title "Ship marine pollution emergency plan";

.19.3 Garbage management plan (for vessels with a gross tonnage of 100 or more designated accomodate on board 15 people and more, as well as stationary and floating platforms);

.19.4 Ship Plan / Manual on systems of oily bilge water and oil residues (oily sludge) treatment (for oil tanker with a gross tonnage of 150 or more, for vessels with a gross tonnage of 150 or more, for which a certificate for the transportation of hazardous liquid substances in bulk is issued and ships not an oil tanker with a gross tonnage of 400 or more);

.19.5 Ship STS Plan - of operations (for oil tanker with a gross tonnage of 150 or more, which performs the transfer of oil cargo between oil tankers at sea («Ship - to - ship oil transfer operations at Sea»);

.19.6 Ship volatile organic compounds (VOCs) vapor Management Plan (for oil tanker which transports crude oil);

.19.7 Technical File of marine diesel engine or for engines of 5000 kW capacity and a cylinder volume of 90 liters or more installed on ships constructed on Jan. 1, 1990 or after, but up to 1 January 2000, the Technical file for approved appliances of ship diesel engine;

.19.8 Guidance on monitoring the emission of NO_X;

.19.9 for vessels using the exhaust gas cleaning systems (EGCS)(unit) to reduce the emissions of SO_X:

.19.9.1 SOx Emission Compliance Plan (SECP);

.19.9.2 Manual on EGC-SO_X system operation (scemes A or B) (for each EGC aggregate);

.19.9.3 Emission monitoring manual SO_X (EMM);

.20 documents required on board in accordance with the requirements of the Regulations for the Prevention of Pollution from Ships, or requirements of MARPOL -73/78/97 and AFS International Convention (subject to approval by the Register on obtaining the directive for document approval):

20.1 Ship Energy Efficiency Management Plan (SEEMP) (for ships of 400 gross tonnage or more, except platforms (including floating receiving, storing and discharging installations and drilling platforms) (may be a part of the safety management system (SMS);

20.2 Approved manual on methods and devices for cargo operations, tanks clearing, sinks flush operations, discharge of liquid residues of harmful substances and ballasting of the vessel (for vessels which are permitted to carry substances of categories X, Y or Z);

.20.3 Operational documents required by Regulations and MARPOL-73/78/97:

.20.3.1 Operating Instructions for volatile organic compounds vapour system (VOCs) (for tankers);

.20.3.2 Operation Manual for shipboard incinerator;

.20.3.3 Guidance on the operation and maintenance of separators for 15 million^{-1} and 15 million^{-1} alarm;

.20.3.4 Guidance on equipment and operation of crude oil wash system (if applicable);

.20.3.5 Approved Manual on operation of automatic measurement, registration and control oil discharge system and, if applicable, ballast and wash water, taking into account overlapping assets in case of failure of control systems;

.20.3.6 Manual on operation and maintenance of wastewater treatment plants or plants for shredding and disinfecting of waste water (depending on which is installed on board).

Note. Documentation on 4.2.15.1.19 and 4.2.15.1.20 subject to approval by the Register may be submitted for consideration at the stage of building the vessel.

4.2.15.2

For inland navigation vessels the following is submitted:

.1 ship technical specification as part of the ship specification on 4.2.2.1, and an explanatory note on the requirements of the part XIV «Measures for the Prevention of Pollution from Ships" of INV Rules (*);

.2 layout of equipment and devices for the prevention of pollution from ships;

.3 calculation of the required capacity of collection and other tanks and tanks for oil residues generated during separation of fuel and lubricants, water containing oil, sewage, garbage collection devices (*);

.4 drawings of specified in 4.2.15.2.3 tanks, tanks and gears and their equipment (may be given as part of working drawings and drawings of built in tanks -as a part of hull constructions drawings);

.5 calculation of voyage autonomy in terms of environmental safety (*);

.6 drawings of equipment location for limiting the spill and collecting oil, spilled overboard with its technical characteristics; .7 schematic diagrams of pumping, distribution and discharge of water containing oil and waste water;

4.2.15.3

For small crafts the following is submitted:

.1 ship technical specification as part of the ship specification on 4.2.2.1, and an explanatory note on the requirements of the part XIV «Measures for the Prevention of Pollution from Ships" of SC Rules(*);

.2 layout of equipment and devices for the prevention of pollution from ships (for vessels operated at sea, 1 or 2 the coastal navigation areas or designated for accomodation on board of 10 persons and more);

.3 calculation of tanks capacity for water containing oil, sewage, garbage collection devices (for vessels operated at sea, 1 or 2 the coastal navigation areas or designated for accomodation on board of 10 persons and more) (stamp of approval is not applied).

4.2.14.4

In construction documentation on 4.2.15.1 - 4.2.15.3 are stated the specifications on equipment, appliances, fittings, materials, insulation, hydraulic tests.

4.2.16

Documentation on Tonnage Measurement of Ships.

4.2.16.1

To determine the gross and net tonnage of sea and mixed (river-sea) navigation vessel the following is submitted:

.1 detailed calculation of gross and net tonnage (if the calculation is performed not by the Register see The rules of tonnage measurement of sea vessels and vessels of mixed navigation) (*);

.2 layout of cargo spaces indicating their capacities;

.3 other drawings necessary for determining (calculations verification) of ship's volumes and capacities.

In determining the tonnage the following documentation is used:

theoretical drawing (see 4.2.7.1);

General arrangement drawings (see 4.2.2.2);

4.2.16.2

For tonnage measurement of inland navigation vessels in accordance with the Rules of measurement of inland navigation vessels and the Convention on the measurement of inland navigation vessels from 1966 the following is submitted:

.1 Calculation of the vessel tonnage with possible drafts (*);

.2 other documents necessary to establish the tonnage characteristics:

general ship specification (see 4.2.2.1);

mass loading of the vessel, including vessel load cases corresponding to the largest ship's draft and a draft of the empty vessel (see 4.2.7.6);

theoretical drawing (see 4.2.7.1);

general arrangement drawings (see 4.2.2.2);

drawing of longitudinal section (see 4.2.3.1.3);

drawing midsection-frames (see 4.2.3.1.2);

height table (*);

.3 Tonnage certificate of inland navigation vessels draft form filling sample (form 2.10.2) (*);

.4 drawings of measurement marks and their location (mounting) on the ship and application of measurement mark.

4.2.16.3

To determine gross tonnage of an inland navigation vessels and a small craft the calculation of gross tonnage is submitted (*).

4.2.17

Documentation for refrigerators is provided in 5.3.3.

4.3 PROGRAMMES OF MOORING AND SEA TRIALS

4.3.1

Programmes of mooring and sea trials are subject to approval by the Register before the beginning of the relevant tests.

4.3.2

Volume of mooring and sea trials must meet the relevant requirements of part 5 "Technical supervision over construction of vessels" of Rules on technical supervision of the construction of ships and manufacture of materials and products considering systems and equipment for the prevention of pollution from ships.

4.4 TECHNICAL DOCUMENTATION FOR RENEWED VESSELS, CONVERTED OR RECLASSIFIED VESSELS

4.4.1

Prior to conversion or renewal of vessels, which is classified or have been classified by the Register it is necessary to submit for review and approval technical documentation on those parts of the hull, machinery,

appliances and equipment subject to re-equipment or renewal, and in the effect of influence of re-equipment or repair on the general technical characteristics of the vessel (strength, stability, freeboard, maneuverability, etc. as well as appropriate calculations, or backgrounds and corrected general materials and documents.

4.4.2

When installing on board of new mechanisms and devices that are different from the original and which are subject to the requirements of the Rules, it is necessary to submit for consideration and approval of the Register additional technical documentation for new facilities related to these mechanisms or devices to the extent necessary for vessel in construction (see 4.1 i 4.2).

4.4.3

It is necessary to provide overall strength calculation taking into account wear and the local residual deformations in the event of hull deformation and wear.

4.4.4

During re-equipment of the vessel for her reclassification the Register must be provided with regard to 4.1.3 and 4.2.1 the following documentation:

.1 explanatory note with background of reclassification (*);

.2 analysis of vessel compliance with requirements of applicable, see 1.3.3, General provisions on the under technical supervision activities of the Register Rules for a new class on all elements of the ship (*);

.3 list of decisions that differ from the requirements of the applicable rules for the new class with backgrounds;

.4 analysis of the ship compliance with the requirements of the applicable international regulations (*);

.5 amendments to the specification (*);

.6 trial program;

.7 instructions for loading the vessel, see 4.2.3.28, or additions to the available on the vessel (for vessels carrying cargo);

.8 stability information (previous) or amendments to existing on board and stability calculation materials and on the basis of which it is composed;

.9 information on the emergency draft and stability (floodability) (previous) or amendments to existing on board calculation materials and on the basis of which it is composed.

Providing documents is allowed according to .8 and .9 as the combined document - Stability and floodability information and for small crafts with inclusion into the set of Manual for the owner;

.10 Additional calculations of general and local strength on the choice of reinforcement designs and sizes of hull braces (*);

.11 technical documentation for assigning freeboard of sea ships and vessels of mixed navigation according to Load Line Rules sea vessels; calculation of freeboard height (*) and drawings of load line (for small craft in case of its application);

.12 grounds, which confirm the ability of operation of the main engines, propulsion-steering gear and the ship's power plant without breach of their technical characteristics, which are determined by delivery documentation and Rules (*);

.13 technical documentation for reclassification of the vessel concerning the reinforcement of the hull, additional equipment and ship supply upon the results of analysis according to .2 and calculations accordingto.10, including drawings of general location. The technical documentation concerning additional equipment of the vessel upon the results of analysis according to .4, including documents required by international conventions and codes;

.14 calculations of maneuverability, including maneuverability table (for a small calculations of steerability for a sailing vessel) (*).

5. CLASSIFICATION OF REFRIGERATION UNIT

5.1 GENERAL PROVISIONS

5.1.1

To ensure the safety of the ship, the protection of human life and preventing ozone-depleting refrigerant action on the environment refrigeration units that are installed on the vessels, which are classified by the Register, shall be subject to surveys in the following cases:

.1 when refrigeration units work on refrigerant of group II according to table 2.2.1 of Part XII «Refrigerators» of SV Rules;

.2 if refrigeration units, working on refrigerants of group I, include compressors with the theoretical absorption, which is 125 m3 / h or more;

.3 if the refrigerator ensures the functioning of systems that affect the safety of the ship.

5.1.2

From listed in 5.1.1 the Register at the request of the shipowner classifies:

.1 refrigeration units designed to create and maintain the necessary temperature and conditions in the refrigerated cargo spaces of cargo vessels and thermally insulated cargo containers;

.2 refrigeration units designed to create and maintain the necessary temperature and conditions in refrigerated cargo spaces for refrigeration processing of fishery products (cooling, freezing) and providing the work of technological equipment on fishing and other vessels used for the processing of biological resources of the sea;

.3 refrigeration units designed to maintain the desired mode of transportation of liquefied gases in bulk on gas carriers.

Other refrigeration units from the number of specified in 5.1.1 are deemed not subject to classification.

5.2 CLASS OF THE REFRIGERATION UNIT

5.2.1

General requirements.

5.2.1.1

The Register may assign the class to a refrigeration unit since the construction of the vessel and also assign or renew the class of the refrigeration unit on the vessel in operation.

5.2.1.2

Assignment or renewal of a class means that the refrigerator in whole or in extent, recognized by the Register sufficient, meets the requirements of the SV Rules, which belong to it, and its technical condition meets specification estimated conditions specified in the Classification certificate for refrigeration unit.

5.2.1.3

Assignment or renewal of a class is certified by issue of Classification certificates of refrigeration unit after proper survey.

5.2.2

Refrigeration unit class symbol.

5.2.2.1

The main refrigeration unit class symbol consists of signs:

REF – for unit, built according to SV Rules and inspected by the Register;

REF – for unit, built according to the rules of classification organization, recognized by the Register, and surveyed in construction by this organization, which is then classified by the Register;

REF – for unit, built according to the rules of classification organization, recognized by the Register, and surveyed in construction by this organization, which is then classified by the Register, if the refrigeration unit does not fully meet the requirements of Part XII «Refrigerators» of SV Rules;

(REF) – for unit, built the survey of classification organization, recognized by the Register or without the survey by the classification organization, but then classified by the Register.

5.2.2.2

Sign of the ability to cool the cargo.

If the power of the refrigeration unit allows cooling of cargo on the vessel, not pre-cooled by the time during which its preservation is ensured, then the main class symbol of the refrigeration unit is attached with the sign **PRECOOLING**.

In this case, into the Classification certificate for the refrigeration unit and into the Register book of vessels is entered a note, that governs the conditions of cooling cargo on the vessel.

5.2.2.3

Sign of the ability for cooling or freezing of fishing products.

If the unit is designed to cool or freeze fishery products and meets the relevant requirements of Part XII «Refrigerators» of SV Rules, then the main class symbol of the refrigeration unit is attached with the sign **QUICK FREEZING**.

5.2.2.4

Additional signs of refrigeration units.

5.2.2.4.1

If the refrigeration unit is designed for cooling of cargo, which is carried in thermally insulated containers, and meets the relevant requirements of Part XII «Refrigerators» of SV Rules, then the main class symbol of the refrigeration unit is attached with the sign **CONTAINERS**.

5.2.2.4.2

If a ship in addition to the refrigeration unit is equipped with gas environment composition control system in refrigerated rooms and/or thermo insulated containers, which meets the relevant requirements of Part XII «Refrigerators» of SV Rules, then the main class symbol of the refrigeration unit is attached with the sign **CA**.

5.2.2.4.3

If the refrigeration unit is designed to maintain the desired mode of transportation of liquefied gases in bulk on gas carriers, and it meets the relevant requirements of Part XII «Refrigerators» of SV Rules, then the main class symbol of the refrigeration unit is attached with the sign **LG**.

5.2.3

Additional characteristics.

5.2.3.1

In the Classification certificate for refrigeration unit and in a Register Book of vessels is entered additional information about conditions of cooling cargo on board, specification temperature conditions of cargo carriage and other information that will be necessary, at the discretion of the Register, for purpose characteristics or design features of the refrigeration unit.

5.2.3.2

In the Classification certificate for refrigeration unit and in a Register Book of vessels is indicated the number of thermally insulated containers serviced by the refrigeration unit.

5.2.4

The change of class symbol signs.

The Register may exclude or change in class symbol appropriate sign in case of change or violation of conditions that formed the basis for the introduction of this sign into the class symbol.

5.3 REFRIGERATION UNIT TECHNICAL DOCUMENTATION

5.3.1

Refrigeration unit design documentation.

Prior to the construction of the vessel the Register must be submitted with project documentation containing information that make it possible to make sure that the requirements of the Rules of the Register to refrigeration units have beencarried out:

.1 technical description of the refrigeration unit (*);

.2 calculation of refrigeration capacity indicating heat load on from each cooled cargo space and technological consumption of cold (*);

.3 drawings of general location of refrigeration unit on board;

.4 schematic diagram of systems of main and emergency ventilation of refrigeration units room and other facilities with the equipment under the pressure of the refrigerant with an indication of watertight and fire bulkheads and air exchange multiplicity;

.5 schematic diagrams of refrigerant, coolant, cooling water systems showing the locations of installation of instrumentation and automation devices;

.6 air cooling system diagram indicating waterproof and fire-prevention bulkheads;

.7 drawing of equipment location in refrigeration units room indicating ways of escape;

.8 drawings of equipment location in the refrigerated rooms indicating the placement of temperature control units;

.9 drawing of insulating structures nodes of refrigerated rooms with technical data of insulation materials;

.10 schematic diagram of the water curtains in refrigeration units room (for refrigerant of group II);

.11 drawings of general location of cooling and units and other technological refrigeration equipment on the vessel;

.12 schematic diagrams of automatic control, protection and signaling;

.13 list of machinery, vessels and apparatuses of refrigeration unit with indicating specifications (*);

.14 list of regulating and measuring devices, protection devices and alarms with indicating specifications (*);

.15 tables of enclosing surfaces areas quantities of refrigerated cargo spaces with information about the estimated heat transfer coefficient of each surface and the average coefficient of heat insulation room design (*);

.16 drawings of air ducting of cargo cooling in thermally insulated containers with indication of distribution over the vessel;

.17 drawings of air ducting insulation with insulation materials technical data;

.18 drawings of sealing and flexible connections with indication of materials data;

.19 drawings of general arrangement of gas environment composition control unit;

.20 list of equipment of gas environment composition control system, including regulatory instruments, automatic devices (*);

.21 drawings of installation and mounting of mechanisms, vessels and apparatuses;

.22 refrigerant, coolant and cooling water piping arrangement drawings indicating the passes through bulkheads, decks and platforms;

.23 drawings of emergency refrigerant discharge overboard station location;

.24 spare parts sheet.

5.3.2

Test program.

5.3.2.1

Test program describing the method of creating the calculated heat load (including the calculation of power consumed by additional heaters) and the method of determining the actual averaged heat transfer coefficient of refrigerated cargo premises construction insulation, is subject to approval by the Register before the beginning of the relevant tests.

5.3.2.2

The volume of tests must meet the relevant requirements of Section 11 of Part 5, "Technical supervision over construction of vessels" of Rules offor technical supervision over the construction of ships and manufacture of materials and products.

5.3.3 Design documentation of the refrigeration unit, which is not classified.

5.3.3.1 Prior to the construction of the vessel for the examination by the Register must be provided documentation referred to in 5.3.1.1.3–5.3.1.1.5 (only for refrigerant), 5.3.1.1.7, 5.3.1.1.10, 5.3.1.1.11 (only for devices that work under pressure of refrigerant), 5.3.1.1.12 (only for the protection and alarm), 5.3.1.1.21, 5.3.1.1.22 (only for refrigerant), 5.3.1.1.23).

ANNEX 1

LIST

of international ISO (series 47.080: small craft) STANDARDS, used for development of SC Rules

ISO 4001: 1997	Shipbuilding – Inland navigation – Raft-type life-saving apparatus *Суднобудування. Внутрішнє судноплавство. Рятувальні засоби типу плота*
ISO 4566: 1992	Small craft with inboard engine - Propeller shaft ends and bosses with 1:10 taper *Малі судна з стаціонарним двигуном. Кінці гребного вала та маточини гребного гвинта з конусністю 1:10*
ISO 6185-1:2001	Inflatable boats - Part 1: Boats with a maximum motor power rating of 4,5 kW *Судна з надувним корпусом. Частина 1. Судна з двигунами максимальною потужністю до 4,5 кВт*
ISO 6185-2:2001	Inflatable boats - Part 2: Boats with a maximum motor power rating of 4,5 kW to 15 kW inclusive *Судна з надувним корпусом. Частина 2. Судна з двигунами максимальною потужністю від 4,5 до 15 кВт включно*
ISO 6185-3:2001	Inflatable boats - Part 3: Boats with a maximum motor power rating of 15 kW and greater *Судна з надувним корпусом. Частина 3. Судна з двигунами максимальною потужністю 15 кВт і більше*
ISO 6185-4:2011	Inflatable boats - Part 4: Boats with a hull length of between 8 m and 24 m with a motor power rating of 15 kW and greater *Судна з надувним корпусом. Частина 4. Судна з довжиною корпуса між 8 м та 24 м з двигунами потужністю 15 кВт і більше*
ISO 7840:2013	Small craft - Fire-resistant fuel hoses *Малі судна. Вогнестійкі паливні шланги*
ISO 8099:2000	Small craft - Toilet waste retention systems *Малі судна. Системи збору стічних вод з туалетів*
ISO 8469:2013	Small craft - Non-fire-resistant fuel hoses *Малі судна. Не вогнестійкі паливні шланги*
ISO 8665:2006	Small craft - Marine propulsion reciprocating internal combustion engines - Power measurements and declarations *Малі судна. Суднові головні гребні двигуни та системи. Вимірювання потужності та заявлені значення*
ISO 8666:2002	Small craft - Principal data *Малі судна. Основні данні*
ISO 8845:1994 +Cor.1: 1995	Small craft with inboard engine — Propeller shaft ends and bosses with 1:16 taper

	Малі судна з стаціонарним двигуном. Кінці гребного вала та маточини гребного гвинта з конусністю 1:16
ISO 8846:1990	Small craft - Electrical devices - Protection against ignition of surrounding flammable gases
	Малі судна. Електричні пристрої. Захист від спалаху навколишніх вогненебезпечних газів
ISO 8847:2004	Small craft - Steering gear - Cable and pulley systems
	Малі судна. Рульовий пристрій. Системи тросів і шківів
ISO 8848:1990	Small craft - Remote steering systems
	Малі судна. Системи дистанційного керування
ISO	Small craft - Electrically operated direct-current bilge pumps
8849:2003	*Малі судна. Трюмні насоси з приводом від електродвигуна постійного струму*
ISO 9093-1:1994	Small craft - Seacocks and through-hull fittings - Part 1: Metallic
	Малі судна. Забортні клапани та фітинги, що проходять через корпус. Частина 1. Металічні
ISO 9093-2: 2002	Small craft - Seacocks and through-hull fittings - Part 2:
	Non- metallic
	Малі судна. Забортні клапани та фітинги, що проходять через корпус. Частина 2. Неметалічні
ISO 9094-1: 2003	Small craft - Fire protection - Part 1: Craft with a hull length of up to and including 15 m
	Малі судна. Протипожежний захист. Частина 1. Судна з довжиною корпуса до 15 м включно
ISO 9094-2: 2002	Small craft - Fire protection - Part 2: Craft with a hull length of over 15 m
	Малі судна. Протипожежний захист. Частина 2. Судна з довжиною корпуса більше 15 м
ISO	Small craft - Electric fans
9097:1991	*Малі судна. Електричні вентилятори*
ISO 9650-1:2005	Small craft - Inflatable liferafts - Part 1:Type I
	Малі судна. Надувні рятувальні плотики. Частина 1. Тип I
ISO 9650-2:2005	Small craft - Inflatable liferafts - Part 2: Type II
	Малі судна. Надувні рятувальні плотики. Частина 2. Тип II
ISO 9650-3:2009	Small craft - Inflatable life-rafts - Part 3: Materials
	Малі судна. Надувні рятувальні плотики. Частина 3. Матеріали
ISO 9775:1990	Small craft - Remote steering systems for single outboard motors of 15 kW to 40 kW power
	Малі судна. Системи дистанційного управління для одиночних підвісних двигунів потужністю від 15 до 40 кВт

ISO 10087:2006	Small craft - Craft identification - Coding system
	Малі судна. Ідентифікація судна. Система кодування
ISO 10088:2013	Small craft - Permanently installed fuel systems
	Малі судна. Стаціонарні паливні системи
ISO 10133:2012	Small craft - Electrical systems - Extra-low-voltage d.c. installations
	Малі судна. Електричні системи. Установки постійного струму наднизької напруги
ISO 10134: 2003	Small craft - Electrical devices - Lightning protection systems
	Малі судна. Електричні пристрої. Системи захисту від удару блискавки
ISO	Small craft - Liquefied petroleum gas (LPG) systems
10239: 2008	*Малі судна. Системи зрідженого нафтового газу (LPG)*
ISO 10240:2004	Small craft - Owner's manual
	Малі судна. Керівництво для власника судна
ISO	Small craft - Hydraulic steering systems
10592: 1994	*Малі судна. Гідравлічні системи керування рульом*
ISO 10862:2009	Small craft - Quick release system for trapeze harness
	Малі судна. Система швидкого роз'єднання для трапецієвидного страхувального пояса
ISO	Small craft - Ventilation of petrol engine and/or petrol tank compartments
11105: 1997	*Малі судна. Вентиляція у відсіках бензинового двигуна і/або цистерн для бензину*
ISO 11192:2005	Small craft - Graphical symbols
	Малі судна. Графічні символи
ISO	Small craft - Start-in-gear protection
11547: 1994	*Малі судна. Захист пускового механізму*
ISO 11591:2011	Small craft, engine-driven - Field of vision from helm position
	Малі судна моторні. Поле огляду з місця керування судном
ISO 11592:2001	Small craft less than 8 m length of hull - Determination of maximum propulsion power rating
	Малі судна з довжиною корпусу менше 8 м. Визначення максимально допустимої потужності двигуна
ISO 11812:2001	Small craft - Watertight cockpits and quick-draining cockpits
	Малі судна. Водонепроникні і швидко осушувальні кокпіти
ISO 12133:2011	Small craft - Carbon monoxide (CO) detection systems
	Малі судна. Системи виявлення монооксиду вуглецю (CO)
ISO 12215-1:2000	Small craft - Hull construction and scantlings - Part 1: Materials: Thermosetting resins, glass- fiber reinforcement, reference laminate
	Малі судна. Конструкція і набор корпусу. Частина 1. Матеріали: термореактивні смоли, скловолоконна арматура, шаруватий матеріал

ISO 12215-2:2002	Small craft - Hull construction and scantlings - Part 2: Materials: Core materials for sandwich construction, embedded materials *Малі судна. Конструкція і набор корпусу. Частина 2. Матеріали. Наповнювачі для конструкцій типу «сандвіч», матеріали для вставок*
ISO 12215-3:2002	Small craft - Hull construction and scantlings - Part 3: Materials: Steel, aluminum alloys, wood, other materials *Малі судна. Конструкція і набор корпусу. Частина 3. Матеріали: сталь, алюмінієві сплави, дерево та інші матеріали*
ISO 12215-4:2002	Small craft - Hull construction and scantlings - Part 4: Workshop and manufacturing *Малі судна. Конструкція і набор корпусу. Частина 4. Будівничі майстерні та виробничий процес*
ISO 12215-5:2008	Small craft - Hull construction and scantlings - Part 5: Design pressures for monohulls, design stresses, scantlings determination *Малі судна. Конструкція і набор корпусу. Частина 5. Розрахунковий тиск для однокорпусних суден, розрахункові напруження, визначення розмірів елементів корпусу*
ISO 12215-6:2008	Small craft - Hull construction and scantlings - Part 6: Structural arrangements and details *Малі судна. Конструкція і набор корпусу. Частина 6. Система набору корпуса та деталі*
ISO 12215-8:2009 +Cor.1:2010	Small craft - Hull construction and scantlings - Part 8: Rudders *Малі судна. Конструкція і набор корпусу. Частина 8. Рулі*
ISO 12215-9:2012	Small craft - Hull construction and scantlings - Part 9: Sailing craft appendages *Малі судна. Конструкція і набор корпусу. Частина 9. Баластові кілі парусного судна*
ISO 12216:2002	Small craft - Windows, port-lights, hatches, dead-lights and doors - Strength and watertightness requirements *Малі судна. Вікна, бортові ілюмінатори, люки, глухі ілюмінатори та двері. Вимоги до міцності та водонепроникності*
ISO 12217-1:2013	Small craft - Stability and buoyancy assessment and categorization - Part 1: Non-sailing boats of hull length greater than or equal to 6 m *Малі судна. Оцінка остійності та непотоплюваності та встановлення проектної категорії. Частина 1. Непарусні судна з довжиною корпусу 6 м і більше*
ISO 12217-2:2013	Small craft - Stability and buoyancy assessment and categorization - Part 2:Sailing boats of hull length greater or equal to 6 m *Малі судна. Оцінка остійності та непотоплюваності та встановлення проектної категорії. Частина 2. Парусні судна з довжиною корпусу 6 м і більше*
ISO 12217-3:2013	Small craft - Stability and buoyancy assessment and categorization - Part 3:Boats of hull length less than 6 m

	Малі судна. Оцінка остійності та непотоплюваності та встановлення проектної категорії. Частина 3. Судна з довжиною корпусу менше 6 м
ISO 12401:2009	Small craft - Deck safety harness and safety line - Safety requirements and test methods *Малі судна. Страхувальні збруї та страхувальні ліні. Вимоги безпеки та методи випробувань*
ISO 13297:2012	Small craft - Electrical systems - Alternating current installations *Малі судна. Електричні системи. Установки змінного струму*
ISO 13342:1995	Small craft - Static trust measurement for outboard motors *Малі судна. Вимірювання статичного упору забортних двигунів*
ISO 13363:2004 + Coor.1:2008	Rubber and plastics hoses for marine-engine wet-exhaust systems - Specification *Рукави резинові та пластмасові для систем водного газовипуску суднових двигунів. Технічні вимоги*
ISO 13590: 2003	Small craft - Personal watercraft - Construction and system installation requirements *Малі судна. Судно для індивідуального користування. Вимоги до конструкції та улаштування систем*
ISO 13591:1997	Small craft - Portable fuel systems for outboard motors *Малі судна. Переносні паливні системи для підвісних двигунів*
ISO 13592:1998	Small craft - Backfire flame control for petrol engines *Малі судна. Контроль зворотного спалаху полум'я бензинових двигунів*
ISO 13929:2001	Small craft - Steering gear - Gearing link systems *Малі судна. Рульовий пристрій. Зубчасті передачі*
ISO 14227:2001	Small craft - Magnetic compasses *Малі судна. Магнітні компаси*
ISO 14509-1:2008	Small craft - Airborne sound emitted by powered recreational craft - Part 1: Pass-by measurement procedures *Малі судна. Повітряний шум, що створюється моторним прогулянковим судном. Частина 1. Методика вимірювання зовнішнього шуму*
ISO 14509-2:2006	Small craft - Airborne sound emitted by powered recreational craft - Part 2: Sound assessment using reference craft *Малі судна. Повітряний шум, що створюється моторним прогулянковим судном. Частина 2. Оцінка звуку з використанням еталонного судна*
ISO 14509-3:2009	Small craft - Airborne sound emitted by powered recreational craft - Part 3: Sound assessment using calculation and measurement procedures *Малі судна. Повітряний шум, що створюється моторним прогулянковим судном. Частина 3. Оцінка звуку з використанням розрахунків і процедур вимірювань*

ISO 14895:2000	Small craft - Liquid- fueled galley stoves *Малі судна. Камбузні плити, що працюють на рідкому паливі*
ISO 14945:2004	Small craft - Builder's plate *Малі судна. Табличка виробника*
ISO 14946:2001	Small craft - Maximum load capacity *Малі судна. Максимальне навантаження*
ISO 15083:2003	Small craft - Bilge – pumping systems *Малі судна. Осушувальні системи*
ISO 15084:2003	Small craft - Anchoring, mooring and towing - Strong points *Малі судна. Якірний, швартовний і буксирний пристрої. Точки кріплення*
ISO 15085: 2003+Amd.1: 2009	Small craft - Man-overboard prevention and recovery *Малі судна. Попередження падіння за борт і підйом людини на борт*
ISO 15372: 2000	Ships and marine technology - Inflatable rescue boats - Coated fabrics for inflatable chambers *Судна та морські технології. Надувні чергові шлюпки. Тканини з покриттям для надувних камер*
ISO 15584:2001	Small craft - Inboard petrol engines - Engine-mounted fuel and electrical components *Малі судна. Стаціонарні бензинові двигуни. Компоненти паливної та електричної систем, що монтуються на двигуні*
ISO 15652:2003	Small craft - Remote steering systems for inboard mini jet boats *Малі судна. Системи дистанційного рульового керування для мінігідрочовнів, що знаходяться на борту*
ISO 15734: 2001	Ships and marine technology - Hydrostatic release units *Судна та морські технології. Гідростатичні пристрої для від'єднання рятувальних плавучих засобів*
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Notes

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GENERAL PROVISIONS ON TECHNICAL SUPERVISION ACTIVITIES

RULES FOR CLASSIFICATION AND CONSTRUCTION OF VESSELS
PART I " CLASSIFICATION "

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