GUIDANCE NOTES
GD 09-2019

GUIDELINES FOR APPLICATION OF CLASS NOTATIONS FOR SEA-GOING SHIPS

Effective from 1 June 2019

Contents

Preface

Classification is an indication by ISC, in accordance with its rules, that the structural strength and integrity of essential parts of the ship's hull and its appendages, and the reliability and the function of the propulsion and steering systems, power generation and those other features and auxiliary systems which have been built into the ship, identified by various characters and notations, are sufficient for maintaining essential services on board.

Ships or machineries (including electrical installations) constructed or manufactured in accordance with relevant rules issued by ISC or other equivalent regulations accepted by it will be assigned appropriate class notations by ISC.

In order to achieve better user's experience, the Guidelines for Application of Class Notations of Sea-Going Ships is developed by summarizing and studying the rules, guidelines and other accepted equivalent provisions in relation to each character of classification and class notation of ISC on the basis of the existing Appendix 1 to Chapter 2 of PART ONE Steel Ship Rules so as to provide guidance to users for application and achieve consistency among classification society, shipowners and the industry.

Chapter 1 General Provisions

1.1 The contents, application scope and technical requirements to be met corresponding to characters of classification and class notations are summarized in the Guidelines, based on the rules and guidelines for sea-going ships issued by ISC and other accepted equivalent provisions to provide guidance to users for application.

1.2 Where the Guidelines would be inconsistent with rules and guidelines for sea-going ships issued by ISC and other accepted equivalent provisions, the rules and guidelines for sea-going ships issued by ISC and other accepted equivalent provisions shall prevail.

Chapter 2 Basis for Development

2.1 General requirements

2.1.1 Valid rules and guidelines and other accepted equivalent provisions based on which the Guidelines are developed are listed in the Table below. During the use of the Guidelines, the newly effective rules/guidelines and other accepted equivalent provisions which have not yet been incorporated timely are to be noted.

2.2 Rules

2.2.1 Rules on the basis of which the Guidelines are developed are shown in Table 2.2.1.

Table 2.2.1

Name of Rules	Abbreviations
Rules for Classification of Sea-Going Steel Ships (2018)	Steel Ship Rules(2018)
Rules for Cruise Ships (2017)	Cruise Ship Rules (2017)
Rules for Intelligent Ships (2015)	Intelligent Ship Rules(2015)
Rules for Materials and Welding (2018)	Rules for Materials and Welding (2018)
Rules for Lifting Appliances of Ships and Offshore Installations (2007) and 2016 Amendments	Lifting Appliance Rules (2007) and 2016 Amendments
Rules for Construction and Classification of Sea-Going High Speed Craft (2015) and 2017 Amendments	High Speed Craft Rules (2015) and 2017 Amendments
Rules for Construction and Equipment of Ships Carrying Dangerous Liquid Chemicals in Bulk （2016）	Bulk Chemical Tanker Rules (2016)
Rules for Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (2018)	Bulk Liquefied Gas Carrier Rules(2018)
Rules for Classification of Floating Docks (2009)	Floating Dock Rules (2009)
Rules for Construction and Classification of Yachts (2012) and 2013, 2014 Amendments	Yacht Rules (2012) and 2013, 2014 Amendments
Rules for Green Ships (2015) and 2016 Amendments	Green Ship Rules(2015) and 2016 Amendments
Rules for Natural Gas Fuelled Ships （2017） and Change Notice	Rules for Natural Gas Fuelled Ships（2017） and Change Notice
Rules for Liquefied Natural Gas Bunkering Ships (2015)	LNG Bunkering Ship Rules (2015)
Rules for Construction of Coastal Boats (2005)	Coastal Boat Rules (2005)
Rules for the Construction and Classification of Diving Systems and Submersibles (2013)	Submersibles Guidelines (2013)

2.3 Guidelines

2.3.1 Guidelines on the basis of which the Guidelines are developed are shown in Table 2.3.1.

Table 2.3.1

Name of Guidelines	Abbreviations
Guidelines for Survey of Air-Conditioning Systems onboard Cruise Ships (2017)	Air-Conditioning System Guidelines (2017)
Guidelines for Application of Automatically Optimized Loading Computers	Loading Computer Guidelines
Guidelines for Survey of Wing-in-Ground Craft (2007)	Wing-in-Ground Craft Guidelines(2007)
Guidelines for Shipboard Vibration Control (2012)	Vibration Guidelines (2012)
Guidelines for Screwshaft Condition Monitoring System	Screwshaft Monitoring Guidelines

Guidelines for Small Waterplane Area Twin Hull Craft (2005)	Guidelines for Small Waterplane Area Twin Hull Craft(2005)
Guidelines for Surveys of Non-Convention Ships (2014)	Non-Convention Ship Guidelines (2014)
Guidelines for Lubricating Oil Condition Monitoring System of Diesel Engines	Diesel Engine Lubricating Oil Monitoring Guidelines
Guidelines for Ships Using Alternative Fuel (2017)	Alternative Fuel Guidelines (2017)
Guidelines for Use of Low Sulphur Fuel Oils in Ships (2013)	Low Sulphur Fuel Oil Guidelines (2013)
Guidelines for Fatigue Strength of Ship Structure (2018)	Fatigue Guidelines(2018)
Guidelines for the Preparation of the Cargo Securing Manual (2015)	Securing Manual Guidelines (2015)
Guidelines for Hull Inspection and Maintenance Scheme (2014)	HIMS Guidelines (2014)
Guidelines for Surveys of Intelligent Machinery of Ships (2017)	Intelligent Machinery Guidelines (2017)
Guidelines for Survey of Planned Maintenance Scheme (PMS) for Machinery	PMS Guidelines
Guidelines for Survey of Oil Floating Storage Vessels Fixed at Anchorage (2017)	Oil Floating Storage Vessel Guidelines (2017)
Guidelines for Survey of Ships Powered by Gas Fuel (2011)	Ships Powered by Gas Fuel Guidelines(2011)
Guidelines for Hull Structure of Car Carriers (2011)	Car Carrier Guidelines (2011)
Guidelines for Implementation of Inspections of Maritime Labour Conditions (2009)	MLC Guidelines (2009)
Guidelines for Exhaust Gas Cleaning Systems Ready (2016)	Guidelines for Exhaust Gas Cleaning Systems Ready(2016)
Guidelines for Well Stimulation (2013)	Guidelines for Well Stimulation (2013)
Guidelines for Development of Ship's Ballast Water Management Plan (2017)	BWMP Guidelines (2017)
Guidelines for Safe and Reliable Assessment of the Marine Software (2017)	Software Assessment Guidelines (2017)
Guidelines for Preparation of Ship Energy Efficiency Management Plan (SEEMP)	SEEMP Plan
Guidelines for Implementation of the Survey of the Requirements for Environmentally Acceptable Lubricants by US EPA	US EAL Guidelines
Guidelines for Development and Survey of the Inventory of Hazardous Materials of Ships (2016)	Ship Inventory of Hazardous Material Guidelines (2016)
Guidelines for Tests and Surveys of Exhaust Gas Cleaning Systems (2016)	Guidelines for Tests and Surveys of Exhaust Gas Cleaning Systems(2016)

Guidelines for Survey of Membrane Tank LNG Carriers (2015)	Membrane Tank Survey Guidelines (2015)
Guidelines for Design and Installation of Exhaust Gas Cleaning Systems (2016)	EGCS Design and Installation Guidelines (2016)
Guidelines for Design and Installation of Dual Fuel Engine System (2007)	Dual Fuel Engine System Guidelines(2007)
Guidelines for Natural Gas Fuel Ready Ships (2015)	Guidelines for Natural Gas Fuel Ready Ships (2015)
Guidelines for Network System Requirements and Security Assessment of Ships (2017)	Network Assessment Guidelines (2017)
Guidelines for Construction Monitoring of Hull Structures (2017) and Change Notice	Construction Monitoring Guidelines and Change Notice
Guidelines for Survey of Corrosion Resistant Steel of Cargo Oil Tanks of Crude Oil Tankers (2017)	Corrosion Resistant Steel Guidelines (2017)
Guidelines for Survey and Verification of the Energy Efficiency Design Index (EEDI) of Ships (2016)	EEDI Guidelines (2016)
Guidelines for Spectrum Based Fatigue Assessment of Hull Structure (2018)	Spectrum-based Fatigue Guidelines (2018)
Guidelines for Application of Fuel Cell Power System (Effective from 1 July 2015)	Fuel Cell Guidelines
Guidelines for Application of Selective Catalytic Reduction (SCR) System Onboard Ships (2016)	SCR Application Guidelines
Guidelines for Selective Catalytic Reduction System Ready (2016)	SCR Ready Guidelines
Guidelines for Survey of Solar Photovoltaic System and Lithium Iron Phosphate Battery System (2014)	Guidelines for Survey of Solar Photovoltaic System and Lithium Iron Phosphate Battery System (2014)
Implementation Guidelines for Liquefied Nature Gas Carriers Adapted for Floating Storage Units (2016)	LNG Carriers Adapted for FSU Guidelines (2016)
Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers (2018)	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers (2018)
Mooring Equipment Guidelines of Oil Companies International Marine Forum (OCIMF) (MEG3/2008)	OCIMF Mooring Equipment Guidelines
Guidelines for the Application of Time-of-Flight Diffraction (TOFD) and Phased Array Ultrasonic Testing (PAUT) Techniques (2017)	TOFD and PAUT Guidelines (2017)
Guidelines for Combined Inspection of Time-of-Flight Diffraction (TOFD) Technique and Phased Array Ultrasonic Testing (PAUT) for Marine Thick Plate Weld Joints (2017)	TOFD and PAUT Combined Inspection Guidelines (2017)

2.4 Others

2.4.1 Other regulations/specifications/requirements referred to during the development of the Guidelines are shown in Table 2.4.1.

Table 2.4.1

SOLAS II-2/19
SOLAS XII/14
Compass-Rules
Applicable requirements of MARPOL Annex I
The ship is to be provided with ERS agreement or statement signed with ship company or ship management personnel and the ERS shore-based service organization designated by the Administration
The ship is to be provided with ERS agreement or statement signed with ship company or ship management personnel and the ERS shore-based service organization ISC which is designated by the Administration (Refer to IACS Rec.145 "Recommendation for the Operation of Shore-Based Emergency Response Services")
PSPC (B), PSPC (D) are to meet the requirements of IMO resolution MSC.215(82); PSPC (C) is to meet the requirements of IMO resolution MSC.288(87) ; PSPC (V) is to meet the requirements of IMO resolution MSC.244(83)

Chapter 3 Characters of Classification and Class Notations for Sea-going Ships

3.1 Characters of classification

3.1.1 Characters of classification are indicative of main features of the ship and necessary.

3.1.2 The hull (including equipment) and machinery (including electrical installations) of a ship that comply with ISC rules, guidelines or equivalent provisions will be assigned appropriate characters of classification and class notations by ISC.

3.1.3 The hull (including equipment) and machinery (including electrical installations) of a ship that are classed with ISC will be assigned one of the following characters of classification as appropriate according to different conditions:

★ CSA
★ CSM
or
★ CSA
★ CSM
or
★ CSA
★ CSM

The meanings of the characters of classification are:

★ CSA — indicating that the ship's hull structure and equipment have been constructed with plan approval by and under the supervision of ISC and comply with ISC rules. Under special circumstances, the ship's hull structure and equipment have been found upon classification survey by ISC to be in compliance with rules which is at least as effective as that required in ISC rules shortly before delivery of the ship, ★ is replaced by $\overline{★}$;

★ CSA — indicating that the ship's hull structure and equipment have been constructed not with plan approval by and not under the supervision of ISC, and that they have been found upon classification survey by ISC to be in compliance with ISC rules;

★ CSM — indicating that the ship's propulsion and essential auxiliary machinery have been inspected by ISC, and that its machinery and electrical installations have been constructed with plan approval by and under the supervision of ISC and comply with ISC rules. Under special circumstances, the ship's machinery (including electrical installations) have been found upon classification survey by ISC to be in compliance with rules which is at least as effective as that required in ISC rules shortly before delivery of the ship, ★ is replaced by $\overline{★}$;

★ CSM — indicating that the ship's propulsion and essential auxiliary machinery have not been inspected by ISC, and that its machinery and electrical installations have been constructed with plan approval by and under the supervision of ISC and comply with ISC rules;

★ CSM — indicating that the ship's machinery and electrical installations have been constructed not with plan approval by and not under the supervision of ISC, and that they have been found upon classification survey by ISC to be in compliance

with ISC rules.

3.2 Class notations

3.2.1 Class notations indicate different features of a ship in sequence, and will be appended to the characters of classification. Class notations in relation to hull and service or service restriction, type, features, equipment, cargo and loading characteristics, survey are normally to be appended after ★ CSA. Class notations in relation to automation machinery, special equipment of machinery, environmental protection, survey of machinery are normally appended after ★ CSM.

3.2.2 Class notations may be divided into necessary notations and optional ones. Type notation, service or service restriction notation and special duties notation are classified as necessary notations which are to be assigned together with characters of classification. At the request of the owner and upon plan approval and surveys by ISC, optional class notation(s) will be assigned by ISC if it is satisfied that the relevant requirements of ISC rules are complied with.

3.2.2.1 Class notation "COMPASS" is required for CSR ships.

3.2.2.2 Class notation "CM" is required for oil tankers and bulk carriers subject to SOLAS Regulation II-1/3-10 (Goal-based ship construction standards for bulk carriers and oil tankers).

3.2.2.3 Class notation "ESP" is required for oil tankers, oil/bulk carriers, oil/bulk/ore carriers, chemical tankers, bulk carriers, self-unloading bulk carriers engaged on international voyages.

3.2.2.4 Class notation "Wing in Ground Craft" is required for ships, which are supported by using ground effect above the water or some other surface, without constant contact with such a surface and supported in the air, mainly, by an aerodynamic lift generated on a wing (wings) which are intended to utilize the ground effect action.

3.2.3 One or one group class notations may be assigned to indicate ship type, cargo and loading characteristics, special duties, special features, service, service restriction or other meanings. Where a class notation (other than type notation, service or service restriction notation and special duties notation) assigned to a specific ship together with characters of classification is required by the rules to which the ship is subject, such notation is a necessary one for this ship, or an optional one.

3.2.4 Where multiple class notations for type of ship are assigned, such individual notations are to be separated by the sign "/", i.e. Offshore Tug/Supply ship; Ore/Bulk/Oil Carrier.

3.2.5 Any suffix to a class notation is to be bracketed and every two suffixes are to be separated by a comma ",", i.e.:

Loading Computer (S, I);

Loading Computer: class notation

S, I: suffix

3.2.6 Every two sets of class notations are to be separated by a semicolon ";".

3.2.7 Unless specially stated otherwise, class notations are generally given in the following sequence:

(1) Type notation: For all ships, the type notation is to be added (see Table A of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(2) Service or service restriction notations: Ships, the service of which is restricted within a specified area or to a specified route due to certain reasons, may be assigned appropriate notations respectively (see Table B of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(3) Special duties notation: Ships, which have been designed and constructed in accordance with

relevant rules and guidelines for their special purposes, may be assigned appropriate notations respectively (see Table C of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(4) Notation of cargo and loading characteristics: Ships, which have been constructed in accordance with particular rules to carry one or more particular cargoes, may be assigned appropriate notations respectively (see Table D of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(5) Special features notations: Ships, which incorporate special features significantly affecting the design, may be assigned appropriate notations respectively, of which the ice service notations Ice Class B1*, Ice Class B1, Ice Class B2, Ice Class B3 correspond respectively to IA Super, IA, IB, IC in the Finnish-Swedish Ice Class Rules (see Table E of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(6) Automation notation: Automatic and remote controls, dynamic positioning systems, one man bridge operated ships, etc., may be assigned appropriate notations respectively (see Table F of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(7) Special equipment notation: Where a relevant device or instrument for special purposes has been installed, appropriate notations may be assigned respectively; for ships of which the longitudinal strength calculation is required, the relevant loading guidance is to be included in the loading manual provided to the master and/or the loading computer, if fitted. The system of the onboard loading computer is, if assigned a relevant notation for longitudinal strength calculation or stability evaluation or both, to be verified according to ISC longitudinal strength calculation programmme and stability evaluation programmme (see Table G of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(8) Special survey notation: For alternative methods or special requirements of survey, appropriate notations may be assigned respectively; self-propelled oil tankers, oil/bulk carriers, oil/bulk/ore carriers, chemical tankers and bulk carriers are subject to an enhanced survey programme; structural diagrams are given in Appendix 2 of Chapter 2, PART ONE of ISC Rules for Classification of Sea-Going Steel Ships for mandatory ship types to which the ESP is assigned (see Table H of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(9) Environmental protection notation: Ships complying with the relevant requirements of ISC rules may be assigned appropriate notations (see Table I of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(10) Refrigerated cargo installation notation: Ships fitted with a refrigerating plant for carrying refrigerated cargo and ships carrying refrigerated containers in holds may be assigned appropriate notations respectively (see Table J of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules);

(11) Other class notations (see Table K of Appendix 1 to Chapter 2, PART ONE Steel Ship Rules): For example, in respect to an ore carrier the plan of which is approved by and constructed under supervision of ISC, engaged in non-restricted service, easy loading, with design check by COMPASS-Structure software, strengthened for heavy cargoes, structural strengthening for loading/unloading by grabs, protective coating, monitoring of construction of hull structure, a minimum design fatigue life of 25 years, ERS, machinery space periodically unattended, hull monitoring system, loading computer, one man bridge operation, natural gas fuel ready system, enhanced survey programme, in-water survey, screwshaft condition monitoring, planned maintenance scheme for machinery, fuel oil tank protection, ballast water management plan, clean, green ship II, crew accommodation, gray water control, green passport, ballast water management

system, high-voltage shore connection system, the following characters of classification and class notations are to be assigned:

★ CSA Ore Carrier；EL100；COMPASS（R,D,F）；Strengthened for Heavy Cargoes；Grab*（30）；PSPC（B,D）；CM；FL（25）；ERS；HMS（G4,O1,A1,B1,W1,N1,C1）；Loading Computer（S,I）； ESP；In-Water Survey；BWMP；BWMS；Crew Accommodation （MLC）

★ CSM AUT-0；OMBO；DFDR（H,m）；SCM；PMS；CLEAN；FTP； Green Ship II；GWC； GPR； AMPS

Chapter 4 Type Notations

4.1 Air Cushion Vehicle

(1) Interpretation: High speed craft wholly supported by air cushion.
(2) Applicable ship type: High speed craft
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules, Ch.2-5	High Speed Craft Rules, Ch. 2-5	High Speed Craft Rules. Ch.2-5
Machinery	High Speed Craft Rules, Ch.2-3, 6	High Speed Craft Rules, Ch. 2-3, 6	High Speed Craft Rules, Ch.2-3, 6
Electricity	High Speed Craft Rules, Ch.2-3, 7-8	High Speed Craft Rules, Ch.2-3, 7-8	High Speed Craft Rules, Ch.2-3, 7-8

4.2 Aquatic Product Carrier

(1) Interpretation: dedicated to transporting aquatic products, characterized by using physical media such as ice, instead of refrigerating plant, for cold storage of aquatic products, with insulation layers fitted on inner surface of holds.
(2) Applicable ship type: aquatic product carrier
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.2	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	——	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	——	Steel Ship Rules, Pt.1, Ch.4	Chapter 5, PART ONE Steel Ship Rules, Pt.1, Ch.5

4.3 Articulated Connection PB Combination - Barge

(1) Interpretation: A combination consisting of a pusher tug and a barge wherein the pusher tug is secured in the barge notch by mechanical means, allowing pitch between the tug and the barge in only one degree of freedom. The two vessels act as a single unit in a seaway and when disconnected from each other, both may moor or operate independently. The barge is a component part of the combination.
(2) Applicable ship type: Articulated Connection PB Combination — Barge
(3) Technical requirements

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.12, Pt.8, Ch.7	Steel Ship Rules, Pt.1, Ch.6	Steel Ship Rules, Pt.1, Ch.6
Machinery	Steel Ship Rules, Pt.3	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.8, Ch.7	——	——

4.4 Articulated Connection PB Combination - Pusher

(1) Interpretation: A combination consisting of a pusher tug and a barge wherein the pusher tug is secured in the barge notch by mechanical means, allowing pitch between the tug and the barge in only one degree of freedom. The two vessels act as a single unit in a seaway and when disconnected from each other, both may moor or operate independently. The pusher tug is a component part of the combination.
(2) Applicable ship type: Articulated Connection PB Combination — Pusher

(3) Technical requirements

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.10, Pt.8, Ch.7	Steel Ship Rules, Pt.1, Ch.6	Steel Ship Rules, Pt.1, Ch.6
Machinery	Steel Ship Rules, Pt.3	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.8, Ch.7	——	——

4.5 Asphalt Carrier

(1) Interpretation: For ships dedicated to carrying melted petroleum asphalt, this type notation is to be assigned and the following notations are to be added:

① for independent tanks: independent tank, or

② for integral tanks: Integral tank;

③ for maximum cargo temperature: Max. Cargo Temperature ≤ ×××℃;

④ for flash point above 60℃: F.P. > 60℃

The notation of thermal stress calculation may be assigned if the requirements of Section 24, Chapter 2, PART TWO of the Rules are complied with.

For ships with distance between two hulls in compliance with the Rules, the notation "Double Hull" may be added and separated by a comma ",", i.e. Asphalt Carrier, Double Hull.

(2) Applicable ship type: Asphalt Carrier

(3) Technical requirements

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.10	Steel Ship Rules, Pt.1, Ch.6	Steel Ship Rules, Pt.1, Ch.6
Machinery	Steel Ship Rules, Pt.3, Pt.8, Ch.10	Steel Ship Rules, Pt.1, Ch.4, 6	Steel Ship Rules, Pt.1, Ch.5, 6
Electricity	Steel Ship Rules, Pt.4, Pt.8, Ch.10	Steel Ship Rules, Pt.1, Ch.4, 6	Steel Ship Rules, Pt.1, Ch.5, 6

4.6 Barge

(1) Interpretation: Ships not provided with main propulsion machinery used for navigation purposes. Where such ships are dedicated to carriage of a specific cargo, they may be identified, as necessary, by the notation X Barge where X is the name of the specific cargo.

(2) Applicable ship type: Barges

(3) Technical requirements

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 12, Pt.6, Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Non-Convention Ship Guidelines, Ch.7	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.7 Barge Carrier

(1) Interpretation: Dedicated cargo barge and heavy cargo carriers with large deck area.

(2) Applicable ship type: Barge carriers

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service

Hull	Steel Ship Rules, Pt.2, Ch.1-2, Pt.6, Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Non-Convention Ship Guidelines, Ch.7	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.8 Bridge Crane and Heavy Equipment Carrier

(1) Interpretation: Carriers having large deck areas and exclusively engaged in loading/unloading on decks and long-distance transportation by sea of complete sets of heavy equipment and project facilities with large dimension/heavy weight such as bridge cranes and heavy equipment.
(2) Applicable ship type: Bridge equipment carriers (dedicated ship types)
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.2, Pt.8, Ch.18	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.9 Bucket Dredger

(1) Interpretation: Ships fitted with bucket and other dredging equipment.
(2) Applicable ship type: Bucket dredgers
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 14, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.10 Bulk Carrier

(1) Interpretation: Ships carrying mainly dry cargo in bulk, normally constructed with single deck, topside tanks, hopper tanks and double bottom in cargo spaces, cargo holds bounded by side shell. For bulk carriers, of which all cargo holds are bounded by double side skin construction of not less than 1000 mm breadth at any location within the hold length, the notation “Double Side Skin” is to be added after their type notation and separated by a comma “,”, i.e. Bulk Carrier, Double Side Skin.
(2) Applicable ship type: Bulk carriers
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1,2,8, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.11 Cable Layer

(1) Interpretation: Ships provided with cable laying machinery and other special equipment.
(2) Applicable ship type: Cable layers
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.12 Car Carrier

(1) Interpretation: Ships specially designed and constructed for carriage of commercial wheeled vehicles.
(2) Applicable ship type: Car carriers
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2 Guidelines for Hull Structure of Vehicle Carriers	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	——	——
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.13 Cargo Boat

(1) Interpretation: Cargo ships less than 20 m in length.
(2) Applicable ship type: Cargo boats
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Coastal Boat Rules, Ch.1-3, 6	Coastal Boat Rules, Ch.1-3, 6	Coastal Boat Rules, Ch.1-3, 6
Machinery	Coastal Boat Rules, Ch.1, 4 , 6	Coastal Boat Rules, Ch.1, 4 , 6	Coastal Boat Rules, Ch.1, 4 , 6
Electricity	Coastal Boat Rules, Ch.1, 5 , 6	Coastal Boat Rules, Ch.1, 5 , 6	Coastal Boat Rules, Ch.1, 5 , 6

4.14 Catamaran

(1) Interpretation: Ships with upper parts of two separate hulls being connected by strength framing.
(2) Applicable ship type: Catamarans
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 18, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.15 Catamaran HSC

(1) Interpretation: High speed craft with upper parts of two parallel hulls being connected by strength framing.

(2) Applicable ship type: High speed craft

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules, Ch.2-5	High Speed Craft Rules, Ch.2-5	High Speed Craft Rules, Ch.2-5
Machinery	High Speed Craft Rules, Ch.2-3, 6	High Speed Craft Rules, Ch.2-3, 6	High Speed Craft Rules, Ch.2-3, 6
Electricity	High Speed Craft Rules, Ch.2-3, 7-8	High Speed Craft Rules, Ch.2-3, 7-8	High Speed Craft Rules, Ch.2-3, 7-8

4.16 Cement Carrier

(1) Interpretation: Ships designed and constructed specifically for the carriage of cement.

(2) Applicable ship type: Cement carriers

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.17 Chemical Barge

(1) Interpretation: Barges carrying chemicals within holds.

(2) Applicable ship type:Chemical barges

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Bulk Chemical Tanker Rules	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Bulk Chemical Tanker Rules	Steel Ship Rules, Pt.1, Ch.4, Bulk Chemical Tanker Rules, Ch.A2	Steel Ship Rules,Pt.1, Ch.5 Bulk Chemical Tanker Rules, Ch.A2
Electricity	Non-Convention Ship Guidelines, Ch.7	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.18 Chemical Tanker

(1) Interpretation: Ships similar as oil tankers, provided with cargo containment system, dedicated to carry liquid cargoes as listed in IBC Code. Chemical tankers constructed on or after 1 July 1986 and complying with IBC Code are to be assigned the following notations respectively, depending on the category of chemicals carried:

① Type 1: Carrying chemicals with very severe environmental and safety hazards, fitted with integral and independent tanks;

② Type 2: Carrying chemicals with appreciably severe environmental and safety hazards, fitted

with integral and independent tanks;
③ Type 3: Carrying chemicals with sufficiently severe environmental and safety hazards, fitted with integral and independent tanks.
Chemical tankers constructed before 1 July 1986 and complying with BCH Code are to be assigned the notations of Type I/Type II/Type III respectively instead of Type 1/Type 2/Type 3.
(2) Applicable ship type: Ships carrying dangerous liquid chemicals in bulk
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Bulk Chemical Tanker Rules	Steel Ship Rules, Pt.1, Ch.4, Bulk Chemical Tanker Rules, Ch.A2	Steel Ship Rules,Pt.1, Ch.5, Bulk Chemical Tanker Rules, Ch.A2
Machinery	Bulk Chemical Tanker Rules	Steel Ship Rules,Pt.1, Ch.4, Bulk Chemical Tanker Rules	Steel Ship Rules,Pt.1, Ch.5, Bulk Chemical Tanker Rules
Electricity	Steel Ship Rules, Pt.4, Bulk Chemical Tanker Rules	Steel Ship Rules, Pt.1, Ch.4, 5, Bulk Chemical Tanker Rules	Steel Ship Rules, Pt.1, Ch.4,5, Bulk Chemical Tanker Rules

4.19 Chemical/Oil Tanker

(1) Interpretation: Tankers capable of carrying both chemicals and oil products.
(2) Applicable ship type: Tankers capable of carrying both chemicals and oil products.
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2 Bulk Chemical Tanker Rules	Steel Ship Rules, Pt.1, Ch.4, Bulk Chemical Tanker Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5 Bulk Chemical Tanker Rules, Ch.A2
Machinery	Steel Ship Rules, Pt.3 Bulk Chemical Tanker Rules	Steel Ship Rules, Pt.1, Ch.4 and Pt.3, Bulk Chemical Tanker Rules	Steel Ship Rules, Pt.1, Ch.5 and Pt.3 Bulk Chemical Tanker Rules
Electricity	Steel Ship Rules, Pt.4 Bulk Chemical Tanker Rules	Steel Ship Rules, Pt.1, Ch.4,5 Bulk Chemical Tanker Rules	Steel Ship Rules, Pt.1, Ch.4,5 Bulk Chemical Tanker Rules

4.20 Container Ship

(1) Interpretation: Ships having double bottom and double side skin construction with torsion box girders fitted at top sides, large deck openings, carrying containers, or as alternative, single side skin construction with double bottom and torsion box girders or equivalent structure.
(2) Applicable ship type: container ships
(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 7	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1,

			Ch.5

4.21 Cutter Suction Dredger

(1) Interpretation: Ships fitted with cutter head and other dredging equipment.

(2) Applicable ship type: Cutter suction dredgers

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 14, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.22 Cutter Wheel Dredger

(1) Interpretation: Ships fitted with cutter-wheel dredging apparatus.

(2) Applicable ship type: Cutter wheel dredgers

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 14, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.23 Deck Cargo Ship

(1) Interpretation: Ships designed for the carriage of cargo exclusively above deck with no cargo hold fitted.

(2) Applicable ship type: Deck cargo ships

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules Pt.2, Ch.1-2, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.24 Dipper Dredger

(1) Interpretation: Ships fitted with dippers. Where a back hoe is fitted, the notation "Back-hoe Dredger" may also be assigned.

(2) Applicable ship type: Dipper dredgers

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 14, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1,

			Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.25 Diving Support Vessel

(1) Interpretation: Ships provided with permanent diving support system to be assigned class notations DSV-Air (air diving system) and DSV-Sat (saturation diving system).

(2) Applicable ship type: Vessels supporting diving operation or operation of remote operated submersible vehicles

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25
Machinery	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25
Electricity	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25

4.26 Dredger

(1) Interpretation: Ships fitted with dredging equipment, in general not operating independently.

(2) Applicable ship type: Dredgers

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2,14, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.27 Ferry

(1) Interpretation: Ships having a continuous deck and carrying passengers (without sleeping berths) and/or vehicles for regular voyages between two sides of straits or islands.

(2) Applicable ship type: ferries

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch. 1, 2,9, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Ch.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Steel Ship Rules, Ch.4	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.28 Fishing Vessel

(1) Interpretation: ships provided with fishing equipment.

(2) Applicable ship type: Fishing vessels

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service

Hull	Steel Ship Rules, Pt.2, Ch.2, Pt.8, Ch.5	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3, Pt.8, Ch.5	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4, Pt.8, Ch.5	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5

4.29 Floating Concrete Mixer

(1) Interpretation: Barges mixing concrete on the water and depositing concrete directly at the construction site.

(2) Applicable ship type: Floating concrete mixers

(3) Technical requirements:

	Technical requirements for design/plan approval	Technical requirements for construction survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 12, Pt.6, Ch.1-3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules,Pt.1, Ch.4	Steel Ship Rules,Pt.1, Ch.5
Electricity	Non-Convention Ship Guidelines, Ch.7	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.30 Floating Crane

(1) Intepretation: Ships fitted with lifting appliances on deck, dedicated to hoisting operations on water. The notation Lifting Appliance is to be added.

For floating cranes operating in restricted service, one of the following service notations is to be assigned:

(1) Lifting Within R1;

(2) Lifting Within R2;

(3) Lifting Within R3;

(4) Lifting Within Harbor.

(2) Applicable ship type: Floating cranes

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2,13	Steel Ship Rules, Pt.1, Ch.4，Lifting Appliance Rules	Steel Ship Rules, Pt.1, Ch.5，Lifting Appliance Rules
Machinery	——	Steel Ship Rules, Pt.1, Ch.4，Lifting Appliance Rules	Steel Ship Rules, Pt.1, Ch.5，Lifting Appliance Rules
Electricity	——	Steel Ship Rules, Pt.1, Ch.4，Lifting Appliance Rules	Steel Ship Rules, Pt.1, Ch.5，Lifting Appliance Rules

4.31 Floating Dock with F_L（×××t）

(1) Intepretation:A building used for shipbuilding and ship repairs, capable of being semi-submersible in or floating on water, with its special hull being open on both ends and corrugated in transverse section. The hull structure of the dock consists of wing walls and the dock's bottom. Wing walls and the dock's bottom are pontoons consisting of longitudinal or transverse members and face plates, divided transversely and longitudinally into watertight compartments. With water being filled into or discharged from the compartments, the amount of ballast water in the dock is increased or decreased so that the dock submerges into or rises out of water.

(2) Applicable ship type: Floating dock

(3) Technical requirements:

	Technical requirements for	Technical requirments	Technical requirements

	design/plan arppoval	for newbuilding survey	for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2,Floating Dock Rules	Floating Dock Rules, Ch.1	Floating Dock Rules, Ch.1
Machinery	Steel Ship Rules, Pt.3, Floating Dock Rules	——	——
Electricity	Steel Ship Rules, Pt.4,Floating Dock Rules	——	——

4.32 Gas Barge

(1) Intepretation: Barges carrying liquefied gases within holds

(2) Applicable ship type: Gas barges

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.12, Bulk Liquefied Gas Carrier Rules	Steel Ship Rules, Pt.1, Ch.4, Bulk Liquefied Gas Carrier Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5, Bulk Liquefied Gas Carrier Rules, Ch.A2
Machinery	Steel Ship Rules, Pt.3,Ch.1-3, Bulk Liquefied Gas Carrier Rules, Pt.3, Ch.5-9, 11, 17, 19	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Non-Convention Ship Guidelines, Ch.7, 10	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.33 General Dry Cargo Ship

(1) Intepretation: Ships intended primarily to carry dry cargo, and also liquid cargo contained in vessels, other than bulk carriers, container ships, ro-ro cargo ships, refrigerated cargo ships, cement carriers, livestock carriers, deck cargo ships and general dry cargo ships of double side skin construction.For general dry cargo ships of double side-skin construction, with double side-skin extending for the entire length of the cargo area, and for the entire height of the cargo hold to the upper deck, the notation “Double Side Skin” is to be added after their type notation and separated by a comma “,”, i.e. General Dry Cargo Ship, Double Side Skin. Notations for this ship type are to meet the survey requirements in Pt.1, Ch.5, Sec.4 Steel Ship Rules .

(2) Applicable ship type: General dry cargo ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3, Pt.8,Ch.	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4, Pt.8,Ch.11	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.34 Grab Dredger

(1) Intepretation: Ships fitted with one or more grab machines.

(2) Applicable ship type: Grab drdegers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,14; Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.35 Hopper Barge

(1) Intepretation: Barges dedicated to carrying mud. If self-propelled, the word "ship" is to be used in place of the word "barge".

(2) Applicable ship type: Hopper barges

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,14,Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3,	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Non-Convention Ship Guidelines, Ch.7	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.36 Hydrofoil Craft

(1) Intepretation: Ships supported completely clear above water surface in non-displacement mode by hydrodynamic forces generated on foils.

(2) Applicable ship type: High-speed craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules, Ch.2-5	High Speed Craft Rules,Ch.2-5	High Speed Craft Rules,Ch.2-5
Machinery	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6
Electricity	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8

4.37 Icebreaker

(1) Intepretation: Polar Class ships which are assigned a class notation for independent navigation in ice-infested polar waters, having an operational profile that includes escort or ice management functions and powering and dimensions that allow it to undertake aggressive operations in ice-covered waters. Relevant polar class is to be affixed after the class notation, e.g. Icebreaker PC3.

(2) Applicable ship type: polar class ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.13	Steel Ship Rules, Pt.8,Ch.13	Steel Ship Rules, Pt.8,Ch.13
Machinery	Steel Ship Rules, Pt.8,Ch.13	Steel Ship Rules, Pt.8,Ch.13	Steel Ship Rules, Pt.8,Ch.13
Electricity	Steel Ship Rules, Pt.8,Ch.13	Steel Ship Rules, Pt.8,Ch.13	Steel Ship Rules, Pt.8,Ch.13

4.38 Launch Barge

(1) Intepretation: Barges dedicated to carriage of offshore jacket structures and for launching such jackets, which will be slid into water through trim of the barge by stern.

(2) Applicable ship type: Launch barges

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,12; Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Non-Convention Ship Guidelines, Ch.7	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.39 Launching work barge

(1) Intepretation: Work barges dedicated to launching ships, offshore installations or other heavy cargoes within shipyard and/or port waters. Such operation may also include cargo moving from water to shore and short-distance movement of cargoes within above- mentioned waters (The ship does not have self-propulsion capability, and movement is driven by other power ships such as tugs or other facilities).

(2) Applicable ship type: Launching work barges

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch. 1-2, 17; Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3,	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.40 Liquefied Gas Carrier

(1) Intepretation: Ships provided with cargo containment system, dedicated to carry liquefied gases or other cargos as listed in Rules for Construction and Equipment of Ships Carrying Liquefied Gases in Bulk. Liquefied gas carriers constructed on or after 1 July 1986 and complying with IGC Code are to be assigned the following notations respectively, depending on the preventive measures to preclude the escape of cargo:

① Type 1G: Maximum preventive measures are required to preclude the escape of cargo;

② Type 2G: Significant preventive measures are required to preclude the escape of cargo;
Type 2PG: For gas carriers of 150 m in length or less and significant preventive measures are required to preclude the escape of cargo, the products are carried in type C independent tanks designed for a MARVS of at least 0.7 MPa gauge and a cargo containment system design temperature of -55℃ or above;

③ Type 3G: Moderate preventive measures are required to preclude the escape of cargo.

Liquefied gas carriers constructed before 1 July 1986 and complying with GC Code are to be assigned the notations of Type IG/Type IIG/Type IIPG/ Type IIIG respectively instead of Type 1G/Type 2G/Type 2PG/ Type 3G.

The following notations are to be assigned respectively, depending on the type of cargo containment systems:

Type A Independent Tank
Type B Independent Tank
Type C Independent Tank
Integral Tank
Membrane Tank
Semi-Membrane Tank
Internal Insulation Tank

(2) Applicable ship type: Liquefied gas carriers with the following types of cargo tanks:

Type A Independent Tank, Type B Independent Tank, Type C Independent Tank, Integral Tank,

Membrane Tank, Semi-Membrane Tank, Internal Insulation Tank
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2& 20,Bulk Liquefied Gas Carrier Rules	Steel Ship Rules, Pt.1, Ch.4，Bulk Liquefied Gas Carrier RulesCh.A2	Steel Ship Rules, Pt.1, Ch.5，Bulk Liquefied Gas Carrier RulesCh.A2
Machinery	Steel Ship Rules, Pt.3,Ch.1-4, 6, 9-14, Pt. 6 & 7, Pt.8, Ch.8,15 Bulk Liquefied Gas Carrier Rules, Pt.3, Ch. 3, 5-9, 11, 16, 17, 19	Steel Ship Rules, Pt.1, Ch.4，Bulk Liquefied Gas Carrier RulesCh.A2	Steel Ship Rules, Pt.1, Ch.5，Bulk Liquefied Gas Carrier RulesCh.A2
Electricity	Steel Ship Rules, Ch.4, 7, Bulk Liquefied Gas Carrier Rules	Steel Ship Rules, Pt.1, Ch.4，Bulk Liquefied Gas Carrier RulesCh.A2	Steel Ship Rules, Pt.1, Ch.5，Bulk Liquefied Gas Carrier RulesCh.A2

4.41 Live Fish Carrier

(1) Intepretation: Ships fitted with live fish holds, provided with water cycling or exchanging, in some cases provided with devices for increasing oxygen, purifying water and/or reducing temperature, dedicated to carry live fish.
(2) Applicable ship type: Live fish carriers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.42 Livestock Carrier

(1) Intepretation: Ships designed and constructed specifically for the carriage of livestock such as cattle, sheep, etc.
(2) Applicable ship type: Livestock carriers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2, Pt.8,Ch.2	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3,Ch.2-3, Pt.8,Ch.2	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4, Pt.8,Ch.2	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.43 LNG Carrier

(1) Intepretation: Liquefied gas carriers dedicated to carrying liquefied natural gas. The notations Type 1G/Type 2G/Type 2PG/ Type 3G or Type IG/Type IIG/Type IIPG/ Type IIIG are to be added for preventive measures to preclude the escape of cargo, as stated in column Description for the notation Liquefied Gas Carrier.Where LNG carriers are adapted for FSUs, the notation “LNG-FSU” (Liquefied Nature Gas-Floating Storage Unit) is to be added after LNG Carrier and separated by a comma “,”, i.e. LNG Carrier, LNG-FSU.

(2) Applicable ship type: Ships dedicated to carrying LNG, cargo tanks of which are mainly membrane and Types A/B/C independent tanks
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2 & 20 , Bulk Liquefied Gas Carrier Rules	Steel Ship Rules, Pt.1, Ch.4, Bulk Liquefied Gas Carrier Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5, Bulk Liquefied Gas Carrier Rules, Ch.A2
Machinery	Steel Ship Rules, Pt.3,Ch.1-4, 6, 9-14, Pt. 6-7, Pt.8,Ch.8,15, Bulk Liquefied Gas Carrier Rules, Pt.3, Ch.3, 5-9, 11, 16-17, 19	Steel Ship Rules, Pt.1, Ch.4, Bulk Liquefied Gas Carrier Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5, Bulk Liquefied Gas Carrier Rules, Ch.A2
Electricity	Steel Ship Rules, Ch.4, 7, Bulk Liquefied Gas Carrier Rules	Bulk Liquefied Gas Carrier Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5, Bulk Liquefied Gas Carrier Rules, Ch.A2

4.44 LNG-FSU

(1) Intepretation: Same as LNG Carrier /LNG carriers.
(2) Applicable ship type: LNG carriers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	LNG Carriers Adapted for FSU Guidelines,Ch.1	Steel Ship Rules, Pt.1, Ch.4，Bulk Liquefied Gas Carrier Rules, Ch.A2，	Steel Ship Rules, Pt.1, Ch.5，Bulk Liquefied Gas Carrier Rules, Ch.A2
Machinery	LNG Carriers Adapted for FSU Guidelines,Ch.2	Steel Ship Rules, Pt.1, Ch.4，Bulk Liquefied Gas Carrier Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5，Bulk Liquefied Gas Carrier Rules, Ch.A2
Electricity	Steel Ship Rules, Pt.4,Bulk Liquefied Gas Carrier Rules, LNG Carriers Adapted for FSU Guidelines,Ch.2-3	Bulk Liquefied Gas Carrier Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5，Bulk Liquefied Gas Carrier Rules, Ch.A2

4.45 LPG Carrier

(1) Intepretation:Liquefied gas carriers dedicated to carrying liquefied petroleum gas. The notations Type 1G/Type 2G/Type 2PG/ Type 3G or Type IG/Type IIG/Type IIPG/ Type IIIG are to be added for preventive measures to preclude the escape of cargo, as stated in column Description for the notation Liquefied Gas Carrier.
(2) Applicable ship type: Ships dedicated to carrying LPG, the cargo tanks of which are normally Type C and Type A independent tanks
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for	Technical requirements for

		newbuilding survey	survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2, Bulk Liquefied Gas Carrier Rules	Steel Ship Rules, Pt.1, Ch.4，Bulk Liquefied Gas Carrier Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5，Bulk Liquefied Gas Carrier Rules, Ch.A2
Machinery	Steel Ship Rules, Pt.3,Ch.1-4, 6, 9-14, Pt.6-7, Pt.8,Ch.8,15, Bulk Liquefied Gas Carrier RulesPt.3,Ch.3, 5-9, 11, 16-17, 19	Steel Ship Rules, Pt.1, Ch.4，Bulk Liquefied Gas Carrier Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5，Bulk Liquefied Gas Carrier Rules, Ch.A2
Electricity	Steel Ship Rules, Ch.4, 7，Bulk Liquefied Gas Carrier Rules	Bulk Liquefied Gas Carrier Rules, Ch.A2	Steel Ship Rules, Pt.1, Ch.5，Bulk Liquefied Gas Carrier Rules, Ch.A2

4.46 Mono-Hull HSC

(1) Intepretation: High speed craft with a single hull.

(2) Applicable ship type: High speed craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules,Ch.2-5	High Speed Craft Rules,Ch.2-5	High Speed Craft Rules,Ch.2-5
Machinery	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6
Electricity	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8

4.47 Offshore Engineering Support Ship

(1) Intepretation: Ships providing multi-function support to offshore engineering operations, e.g. offshore installation, survey and repair of structures, as well as underwater robot operation, diving operation, etc.

(2) Applicable ship type: Offshore engineering support ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.48 Offshore Supply Ship

(1) Intepretation: Ships dedicated to supplying food, stores, etc., to installations and ships engaged in offshore operations.

(2) Applicable ship type: Offshore supply ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch. 1-2, 11，Pt.6, Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.49 Offshore Tug/ Supply Ship

(1) Intepretation:Ships capable of operating as offshore supply ships and of towing operations.

(2) Applicable ship type: Offshore tug and supply ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch. 1-2, 11， Pt.6, Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.1, Ch.5	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.50 Oil Barge

(1) Intepretation: Barges carrying crude oil or oil products within holds.

(2) Applicable ship type: Oil barges

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,12, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Non-Convention Ship Guidelines, Ch.7	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.51 Oil FSV fixed at XXX Anchorage

(1) Intepretation: Oil floating storage vessels (FSV) satisfying the following conditions:

① a laid-up double hull oil tanker, of which the cargo tanks and relevant systems have oil storage function;

② a fixed anchorage in restricted marine environment with an offshore distance not exceeding 20 nautical miles.

(2) Applicable ship type: Oil floating storage vessels

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Oil Floating Storage Vessel Guidelines	Oil Floating Storage Vessel Guidelines	Oil Floating Storage Vessel Guidelines
Machinery	Oil Floating Storage Vessel Guidelines	Oil Floating Storage Vessel Guidelines	Oil Floating Storage Vessel Guidelines
Electricity	Oil Floating Storage Vessel Guidelines	Oil Floating Storage Vessel Guidelines	Oil Floating Storage Vessel Guidelines

4.52 Oil Tanker

(1) Intepretation: Ships carrying crude oil or oil products, note to be added according to flash point of oil carried:

① flash point above 60℃: F.P. > 60℃ ② flash point up to 60℃: F.P. ≤ 60℃

For ships with distance between two hulls in compliance with the Rules, single deck and small-size hatches, carrying crude oil or oil products, the notation “Double Hull” may be added and separated by a comma “,”, i.e. Oil Tanker, Double Hull

(2) Applicable ship type: Oil tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2, 5-6, Pt.6, Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.53 Open-Top Container Ship

(1) Intepretation: Ships having double bottom and double side skin construction with torsion box girders fitted at top sides, large deck openings, carrying containers, or as alternative, single side skin construction with double bottom and torsion box girders or equivalent structure, but no hatch covers for holds.

(2) Applicable ship type: Open-top container ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch. 2, 7, Pt.8,Ch.6	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3,, Pt.8,Ch.6	——	——
Electricity	Steel Ship Rules, Pt.4	——	Steel Ship Rules, Pt.1, Ch.5

4.54 Ore Carrier

(1) Intepretation: Ships constructed with single deck, 2 longitudinal bulkheads and a double bottom throughout the cargo length area and intended primarily to carry ore cargoes in the centre holds only.

(2) Applicable ship type: Ore carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch. 1, 2, 16, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3,	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.55 Ore/Bulk/Oil Carrier

(1) Intepretation: Ships with double hull, single deck, double bottom, topside tanks and hopper tanks, carrying oil or dry bulk cargo (including ore).

(2) Applicable ship type: Ore/bulk/oil carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch. 1-2, 5-6, 8,16, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

Machinery	Steel Ship Rules, Pt.3,	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.56 Ore/Oil Carrier

(1) Intepretation: Ships with single hull, single deck, 2 longitudinal bulkheads and double bottom, all or most of center holds used for carrying ore, side or side and some centre holds used for carrying oil.

(2) Applicable ship type: Ore/oil carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2, 5-6, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.57 Passenger Boat

(1) Intepretation: Passenger ships less than 20 m in length.

(2) Applicable ship type: Small passenger boats

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Coastal Boat Rules, Ch.1-3, 6	Coastal Boat Rules, Ch.1-3, 6	Coastal Boat Rules, Ch.1-3, 6
Machinery	Coastal Boat Rules, Ch.1, 4, 6	Coastal Boat Rules, Ch.1, 4, 6	Coastal Boat Rules, Ch.1, 4, 6
Electricity	Coastal Boat Rules, Ch.1, 5, 6	Coastal Boat Rules, Ch.1, 5, 6	Coastal Boat Rules, Ch.1, 5, 6

4.58 Passenger Ship

(1) Intepretation: Ships carrying more than 12 passengers.

(2) Applicable ship type: Passenger ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1, 2, 9, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3,	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.59 Pile Driving Barge

(1) Intepretation: Barges fitted with pile driving equipment at end or centre of deck, dedicated to pile driving in water.

(2) Applicable ship type: Pile-driving barges

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in

			service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,13, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3,	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.60 Pipe Layer

(1) Intepretation: Ships provided with special equipment for laying pipes.

(2) Applicable ship type: Pipe layers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,13, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.61 Pontoon Barge

(1) Intepretation: Square barges carrying water-resistant cargoes on deck.

(2) Applicable ship type: Pontoon barges

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,12, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3,	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Non-Convention Ship Guidelines, Ch.7	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.62 Reclamation Craft

(1) Intepretation: Ships fitted with suction pipes, nozzles, etc.

(2) Applicable ship type: Reclamation craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,14, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.63 Refrigerated Cargo Ship

(1) Intepretation: Ships fitted with refrigerated cargo installations, dedicated to the carriage of perishable goods such as fish, meat, fruits, vegetables, etc.

(2) Applicable ship type: Refrigerated cargo ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service

Hull	Steel Ship Rules, Pt.2,Ch.1-2, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt. 3, 5	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt. 4, 5	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.64 Rescue Ship

(1) Intepretation: Ships engaged in rescue operations at sea for ships and crew in distress.

(2) Applicable ship type: Rescue ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.65 Rigid Connection PB Combination-Barge

(1) Intepretation: A combination consisting of a pusher tug and a barge wherein the pusher tug is secured in the barge notch by mechanical means. There is no relative motion between the tug and the barge, resulting in the two vessels acting as a single unit in a seaway. The barge is a component part of the combination.

(2) Applicable ship type: Rigid combination: Barge

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.12, Pt.8,Ch.7	Steel Ship Rules, Pt.1, Ch.6	Steel Ship Rules, Pt.1, Ch.6
Machinery	Steel Ship Rules, Pt.3	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.8,Ch.7	——	——

4.66 Rigid Connection PB Combination-Pusher

(1) Intepretation: A combination consisting of a pusher tug and a barge wherein the pusher tug is secured in the barge notch by mechanical means. There is no relative motion between the tug and the barge, resulting in the two vessels acting as a single unit in a seaway. The pusher tug is a component part of the combination.

(2) Applicable ship type: Rigid combination: pusher tug

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.10, Pt.8,Ch.7	Steel Ship Rules, Pt.1, Ch.6	Steel Ship Rules, Pt.1, Ch.6
Machinery	Steel Ship Rules, Pt.3	——	——
Electricity	Steel Ship Rules, Pt.4,Pt.8,Ch.7	——	——

4.67 RO-RO Passenger Ship

(1) Intepretation: Passenger ships with ro-ro cargo spaces or special category spaces and capable of carrying road vehicles.

(2) Applicable ship type: Ro-ro passenger ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1, 2, 9, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.68 RO-RO Ship

(1) Intepretation: Ships carrying vehicles or cargo in pallet form or in containers and loaded/unloaded by wheeled vehicles.

(2) Applicable ship type: Ro-ro ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1, 2, 9, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.69 Salvage Ship

(1) Intepretation: Ships provided with equipment for salvaging sunken ships or other objects.

(2) Applicable ship type: Salvage ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,13, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.70 Sand Carrier

(1) Intepretation: Ships designed and constructed specifically for the carriage of sand, which is to be surveyed according to the requirements for double hull bulk carrier

(2) Applicable ship type: Sand carriers.

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 19, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.71 Semi-Submersible Vessel

(1) Intepretation: Ships capable of being semi-submersible when needed during loading and

unloading or operation.

(2) Applicable ship type: Semi-submersible vessels

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 15, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.72 Split Hopper Barge

(1) Intepretation: Barges with entire main hull being opened along longitudinal centerline for unloading. If self-propelled, the word "ship" is to be used in place of the word "barge".

(2) Applicable ship type: Split hopper barges

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,14, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Non-Convention Ship Guidelines, Ch.7	Non-Convention Ship Guidelines, Ch.1	Non-Convention Ship Guidelines, Ch.1

4.73 Split Hopper Dredger

(1) Intepretation: Ships with entire main hull being opened along longitudinal centerline for unloading.

(2) Applicable ship type: Split hopper dredgers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,14, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.74 Stand-by Ship

(1) Intepretation: Ships providing rescue operations and supporting services for mobile offshore drilling units or offshore oil/gas production facilities.Additional auxiliary functions such as fire fighting, towing, oil recovery, supply may be provided according to design purposes and multiple type notations may be assigned accordingly. For towing capacity fully complying with Chapter 10, PART TWO of the Steel Ship Rules, the notation Stand-by Ship/Tug may be assigned; and for towing capacity complying only with the requirements for towing arrangements in Chapter 10, PART TWO of the Steel Ship Rules, the suffix T may be added.

(2) Applicable ship type: Stand-by ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding	Technical requirements for survey of ships in

		survey	service
Hull	Steel Ship Rules, Pt.2,Ch.2,Pt.8,Ch.24	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3, Pt.8,Ch.24	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4,Pt.8,Ch.24	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.75 Surface Effect Ship

(1) Intepretation: High speed craft with its air cushion being totally or partially retained by permanently immersed hard structure

(2) Applicable ship type: High speed craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules,Ch.2-5	High Speed Craft Rules,Ch.2-5	High Speed Craft Rules,Ch.2-5
Machinery	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6
Electricity	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8

4.76 SWATH

(1) Intepretation: A special type of catamaran with small waterplane area, and with underwater portions of hulls being formed in shape of torpedo.

(2) Applicable ship type: Small waterplane area twin hull craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2, Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft
Machinery	Steel Ship Rules, Pt.3, Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft
Electricity	Steel Ship Rules, Pt.4, Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft

4.77 SWATH-HSC

(1) Intepretation: A special type of catamaran high speed craft with small waterplane area, and with underwater portions of hulls being formed in shape of torpedo.

(2) Applicable ship type: High speed small waterplane area twin hull craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2,Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft
Machinery	Steel Ship Rules, Pt.3, Guidelines for Small	Guidelines for Small Waterplane Area Twin	Guidelines for Small Waterplane Area Twin

	Waterplane Area Twin Hull Craft	Hull Craft	Hull Craft
Electricity	Steel Ship Rules, Pt.4, Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft	Guidelines for Small Waterplane Area Twin Hull Craft

4.78 Timber Carrier

(1) Intepretation: Dedicated log or timber carriers, provided with securing equipment, for which the notation Log Carrier may also be used.

(2) Applicable ship type: Timber carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.79 Trailing Suction Hopper Dredger

(1) Intepretation: Ships fitted with drag head and other dredging equipment.

(2) Applicable ship type: Trailing suction dredgers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2,14, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.80 Train/RO-RO Passenger Ship

(1) Intepretation: Ro-ro ships carrying more than 12 passengers and capable of carrying trains.

(2) Applicable ship type: Train and ro-ro passenger ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1, 2, 9, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.81 Trimaran HSC

(1) Intepretation: A vessel with three hulls of displacement form, a main centre hull stabilized by two much smaller side hulls, connected by connection bridge.

(2) Applicable ship type: High speed craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in

			service
Hull	High Speed Craft Rules,Ch.2-5	High Speed Craft Rules,Ch.2-5	High Speed Craft Rules,Ch.2-5
Machinery	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6
Electricity	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8

4.82 Tug

(1) Intepretation: Ships fitted with towing equipment, dedicated to towing ships or other floating objects on water.

(2) Applicable ship type: Tugs

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1-2, 10, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.83 Water Tanker

(1) Intepretation: This notation may be assigned to tankers carrying fresh water.

(2) Applicable ship type: Water tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2, 5-6, Pt.6,Ch.1-3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1, Ch.4	Steel Ship Rules, Pt.1, Ch.5

4.84 Wave Pierce Craft

(1) Intepretation: A special type of catamaran high speed craft with large aspect ratio and small waterplane area.

(2) Applicable ship type: High speed craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules,Ch.2-5	High Speed Craft Rules,Ch.2-5	High Speed Craft Rules,Ch.2-5
Machinery	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6	High Speed Craft Rules,Ch.2-3,6
Electricity	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8	High Speed Craft Rules,Ch.2-3, 7-8

4.85 Wing In Ground Craft

(1) Intepretation: Ships, which are supported by using ground effect above the water or some other surface, without constant contact with such a surface and supported in the air, mainly, by an aerodynamic lift generated on a wing (wings) which are intended to utilize the ground effect action, must be assigned this type notation with one

of following suffixes being added thereafter:

A — for craft certified for operation only in ground effect;

B — for craft certified to temporarily increase its altitude to a limited height beyond ground effect but not exceeding a certain distance.

(2) Applicable ship type: Wing-in-ground craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Wing-in-Ground Craft Guidelines, Ch.1-4	Wing-in-Ground Craft Guidelines, Ch.1-4	Wing-in-Ground Craft Guidelines, Ch.1-4
Machinery	Wing-in-Ground Craft Guidelines, Ch.1 & 4	Wing-in-Ground Craft Guidelines, Ch.1 & 4	Wing-in-Ground Craft Guidelines, Ch.1 & 4
Electricity	Wing-in-Ground Craft Guidelines, Ch.1 & 5	Wing-in-Ground Craft Guidelines, Ch.1 & 5	Wing-in-Ground Craft Guidelines, Ch.1 & 5

4.86 Yacht

(1) Intepretation: Pleasure motorboats for sight-seeing and recreational activities and not engaged in trade.

(2) Applicable ship type: Yachts

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Yacht Rules, Pt.1, Ch.1, 2, 5, 6; Yacht Rules, Pt.2,Ch.1-3	Yacht Rules, Pt.1, Ch.1, 3, 6; Pt.2, Ch.1 & 4	Yacht Rules, Pt.1, Ch.1, 3, 6; Pt.2, Ch.1 & 4
Machinery	Yacht Rules, Pt.1, Ch.1, 3, 6; Yacht Rules, Pt.2, Ch.1 & 4	Yacht Rules, Pt.1, Ch.1, 3, 6; Pt.2, Ch.1 & 4	Yacht Rules, Pt.1, Ch.1, 3, 6; Pt.2, Ch.1 & 4
Electricity	Yacht Rules, Pt.1, Ch.1, 4, 6; Yacht Rules, Pt.2, Ch.1 & 5	Yacht Rules, Pt.1, Ch.1, 3, 6; Pt.2, Ch.1 & 4	Yacht Rules, Pt.1, Ch.1, 3, 6; Pt.2, Ch.1 & 4

Chapter 5 Service or Service Restriction Notations

5.1 ××-××Service

(1) Intepretation: On specified route service.
(2) Applicable ship type: All ship types
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2	——	Steel Ship Rules, Pt.1, Ch. 5, App. 1
Machinery	Steel Ship Rules, Pt.3	——	——
Electricity	Steel Ship Rules, Pt.4	——	——

5.2 Calm Water Service Restriction

(1) Intepretation: For craft engaged on voyages in the sea areas within 5 nautical miles off the shore. Such craft do not proceed in the course of a voyage more than 2 h at operational speed from the shore when fully laden, with wind force not exceeding Beaufort scale 6 and visual wave height not more than 1.0 m.
(2) Applicable ship type: All high speed craft
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules, Ch.2-5	——	——
Machinery	High Speed Craft Rules, Ch.2, 3,6	——	——
Electricity	High Speed Craft Rules, Ch.2,3,7,8	——	——

5.3 Coastal Service Restriction

(1) Intepretation: For craft engaged on voyages in the sea area within 20 nautical miles off the shore, which proceed in the course of a voyage for a time specified below, at operational speed from a place of refuge when fully laden:① not more than 4 h for passenger craft; ② not more than 8 h for cargo craft.
(2) Applicable ship type: All high speed craft
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules, Ch.2-5	——	——
Machinery	High Speed Craft Rules, Ch.2,3,6	——	——
Electricity	High Speed Craft Rules, Ch.2, 3,7,8	——	——

5.4 Dredging Within R1

(1) Intepretation: Restricted service area for dredgers.
(2) Applicable ship type: Dredegers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service

Hull	Steel Ship Rules, Pt.2,Ch.2,14, Pt.10, Ch. 2,6	——	——
Machinery	Steel Ship Rules, Pt.3, Pt.10,Ch.3,6	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.10, Ch.4,6	——	——

5.5 Dredging Within R2

(1) Intepretation: Restricted service area for dredgers.

(2) Applicable ship type: Dredegers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2,14,Pt.10, Ch.2,6	——	——
Machinery	Steel Ship Rules, Pt.3, Pt.10,Ch.3, 6	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.10,Ch.4,6	——	——

5.6 Dredging Within R3

(1) Intepretation: Restricted service area for dredger.

(2) Applicable ship type: Dredegers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2,14,Pt.10,Ch.2,6	——	——
Machinery	Steel Ship Rules, Pt.3, Pt.10, Ch.3,6	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.10, Ch.4,6	——	——

5.7 Greater Coastal Service Restriction

(1) Intepretation: For craft engaged on voyages in the sea area within 200 nautical miles off the shore, which proceed in the course of a voyage for a time specified below, at operational speed from a place of refuge when fully laden:① not more than 4 h for passenger craft; ② not more than 8 h for cargo craft.

(2) Applicable ship type: All high speed craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules, Ch.2-5	——	——
Machinery	High Speed Craft Rules, Ch.2,3,6	——	——
Electricity	High Speed Craft Rules, Ch. 2, 3,7,8	——	——

5.8 Open Sea Service Restriction

(1) Intepretation: The service in the sea area within 300 nautical miles off the shore, and a passenger craft does not proceed in the course of its voyage more than 4 h, or a cargo craft 8 h, at operational speed from a place of refuge when fully laden.

Where the sea state of some service areas abovementioned is heavier, more stringent requirements may be made by ISC to the distance above-mentioned, depending on the specific cases. When special provisions for the service area are stipulated by the Administration of the flag State or by the coastal Authority in charge of the service area, the provisions are to be observed.

(2) Applicable ship type: All high speed craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules, Ch.2-5	——	——
Machinery	High Speed Craft Rules, Ch.2,3,6	——	——
Electricity	High Speed Craft Rules, Ch.2,3,7,8	——	——

5.9 R1

(1) Intepretation: Within 200 (summer / tropical*) or 100 (winter*) n mile off the shore.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Pt.10, Ch.2	——	Steel Ship Rules, Pt.1, Ch.5, App.1
Machinery	Steel Ship Rules, Pt.3, Pt.10, Ch.3	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.10, Ch.4	——	——

5.10 R2

(1) Intepretation: Within 20 (summer / tropical*) or 10 (winter*) n mile off the shore.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Pt.10,Ch.2	——	Steel Ship Rules, Pt.1, Ch.5, App.1
Machinery	Steel Ship Rules, Pt.3, Pt.10, Ch.3	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.10,Ch.4	——	——

5.11 R3

(1) Intepretation: Sheltered waters**.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Pt.10, Ch.2	——	Steel Ship Rules, Pt.1, Ch.5, App.1
Machinery	Steel Ship Rules, Pt.3, Pt.10,Ch.3	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.10,Ch.4	——	——

5.12 Sheltered Water Service Restriction

(1) Intepretation: For craft engaged on voyages in the sea areas between islands and the shore and between islands with a distance of less than 10 n miles in between, which forms a comparatively good sheltered condition with a little wave, or within 10 nautical miles off the shore. Such craft do not proceed in the course of a voyage more than 2 h at operational speed from the shore when fully laden, with wind force not exceeding Beaufort scale 6 and visual wave height not more than 2.0 m.

(2) Applicable ship type: All high speed craft

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	High Speed Craft Rules, Ch.2-5	——	——
Machinery	High Speed Craft Rules, Ch.2,3,6	——	——
Electricity	High Speed Craft Rules, Ch.2,3,7,8	——	——

5.13 Weather Restriction N

(1) Intepretation: Weather restriction for wing-in-ground craft, with N being one of the following:
I: Significant wave height not exceeding 3.0 m and wind force not exceeding Beaufort scale 7 for the restricted service;
II: Significant wave height not exceeding 2.0 m and wind force not exceeding Beaufort scale 6 for the restricted service;
III: Significant wave height not exceeding 1.0 m and wind force not exceeding Beaufort scale 5 for the restricted service;
IV: Significant wave height not exceeding 0.5 m and wind force not exceeding Beaufort scale 4 for the restricted service.

(2) Applicable ship type: All wing-in-ground crafts

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Wing-in-Ground Craft Guidelines, Ch.1-4	——	——
Machinery	Wing-in-Ground Craft Guidelines, Ch.1,4	——	——
Electricity	Wing-in-Ground Craft Guidelines, Ch.1,5	——	——

Chapter 6 Special Duties Notations

6.1 Cruise

(1) Intepretation: For sea-going passenger ships which provide travel and leisure services, e.g. culture, sports, dining, shopping, accommodation and sightseeing for passengers through various living and recreational facilities provided on board, the notation "Cruise" may be added after the class notation "Passenger Ship".

(2) Applicable ship types: All ship types

(3) Technical requirements:

	Technical requirements for design/Plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Cruise Ship Rules, Pt.2,4	Steel Ship Rules, Pt.1,Ch.4, Cruise Ship Rules, App.1-2, Air-Conditioning System Guidelines	Steel Ship Rules, Pt.1,Ch.5, Cruise Ship Rules, App.1-2, Air-Conditioning System Guidelines
Machinery	Cruise Ship Rules, Pt.3,4	Steel Ship Rules Pt.1,Ch.4, Cruise ship Rules, App.1-2, Air-Conditioning System Guidelines	Steel Ship Rules, Pt.1,Ch.5, Cruise Ship Rules, App.1-2, Air-Conditioning System Guidelines
Electricity	Cruise Ship Rules, Pt.3,4	Steel Ship Rules, Pt.1,Ch.4, Cruise Ship Rules, App.1-2, Air-Conditioning System Guidelines	Steel Ship Rules, Pt.1,Ch.5, Cruise Ship Rules, App.1-2, Air-Conditioning System Guidelines

6.2 Fire Fighting Ship N

(1) Intepretation: Ships capable of fire fighting are to be assigned this notation, with N being one of the following:

1 – for early stage fire fighting;

2 – for large fire fighting;

3 – for large or oil fire fighting.

For ships provided with a water spraying system for delivering efficient cooling water spraying over all the exposed vertical surfaces of the hull so as to enable the ship to approach the burning object for fire-fighting and/or rescue purposes, the notation Water Spraying may be added after the above notation.

(2) Applicable ship type: cargo ships, various fire fighting ships

(3) Technical requirements:

	Technical requirements for design/Plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.1	Steel Ship Rules, Pt.1,Ch.4,6	Steel Ship Rules, Pt.1,Ch.5,6
Machinery	Steel Ship Rules, Pt.8,Ch.1	Steel Ship Rules, Pt.1,Ch.4,6	Steel Ship Rules, Pt.1,Ch.5,6
Electricity	Steel Ship Rules, Pt.8,Ch.1	Steel Ship Rules, Pt.1,Ch.4,6	Steel Ship Rules, Pt.1,Ch.5,6

6.3 Fish-Factory Ship

(1) Intepretation: Ships specialized in fish processing.

(2) Applicable ship type: Fisheries processing ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in

			service
Hull	Steel Ship Rules, Pt.2,Ch.2	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1, Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1, Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1, Ch.5

6.4 LNG Bunkering Ship

(1) Intepretation: Ships with the function of LNG bunkering.

Other ships having cruise functions (e.g. ro-ro passenger ships) may also be assigned with class notaions for cruise ships as appropriate.

(2) Applicable ship type:

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	LNG Bunkering Ship Rules, Ch. 1-2	LNG Bunkering Ship Rules, Ch.1	LNG Bunkering Ship Rules, Ch.1
Machinery	LNG Bunkering Ship Rules, Ch.3, 5,8	LNG Bunkering Ship Rules, Ch.1	LNG Bunkering Ship Rules, Ch.1
Electricity	LNG Bunkering Ship Rules, Ch.7	LNG Bunkering Ship Rules, Ch.1	LNG Bunkering Ship Rules, Ch.1

6.5 Oil Recovery Ship not suitable for products with a flashpoint of 60℃ and less

(1) Intepretation: Steel ships equipped for the recovery of oil floating on the sea with a flash point exceeding 60 ℃ (closed-cup test) and a Reid vapour pressure below atmospheric pressure.

(2) Applicable ship type: Oil recovery ships（for the recovery of oil with a flash point exceeding 60℃）

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.2; Pt.8,Ch.3	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.3;Pt.8,Ch.3	Steel Ship Rules, Pt.1, Ch.4 & 6	Steel Ship Rules, Pt.1, Ch.5 & 6
Electricity	Steel Ship Rules, Pt.4; Pt.8, Ch.3	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1, Ch.5 & 6

6.6 Oil Recovery Ship with Cargo Tank

(1) Intepretation: Steel ships equipped for the recovery of oil floating on the sea with a flash point not exceeding 60 ℃ (closed-cup test) and a Reid vapour pressure below atmospheric pressure.

(2) Applicable ship type: Oil recovery ships (with cargo tank)

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2;Pt.8,Ch.3	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.3; Pt.8, Ch.3	Steel Ship Rules, Pt.1, Ch.4 & 6	Steel Ship Rules, Pt.1, Ch.5 & 6
Electricity	Steel Ship Rules, Pt.4; Pt.8,Ch.3	Steel Ship Rules,	Steel Ship Rules, Pt.1,

		Pt.1,Ch.6	Ch.5 & 6

6.7 Oil Recovery Ship without Cargo Tank

(1) Intepretation: Steel ships equipped for the recovery of oil floating on the sea with a flash point not exceeding 60 ℃ (closed-cup test) and a Reid vapour pressure below atmospheric pressure.

(2) Applicable ship type: Oil recovery ships (without cargo tank)

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2;Pt.8,Ch.3	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.3; Pt.8, Ch.3	Steel Ship Rules, Pt.1, Ch.4 & 6	Steel Ship Rules, Pt.1, Ch.5 & 6
Electricity	Steel Ship Rules, Pt.4; Pt.8,Ch.3	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1, Ch.5 & 6

6.8 Public Affair Ship

(1) Intepretation: Ships owned or operated by the Government and used only for non-commercial services.

(2) Applicable ship type:

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.1 &2; Pt. 6, Ch.1-3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

6.9 Research Ship

(1) Intepretation: Ships specialized in marine research and study, survey, exploration, etc., are to be assigned this notation.

(2) Applicable ship type: Research ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

6.10 Sewage recovery Vessel

(1) Intepretation: Ships dedicated to recovery of rubbish.

(2) Applicable ship type:

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service

Hull	Steel Ship Rules, Pt.2,Ch.1-2; Pt.6, Ch.1-3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

6.11 SPS

(1) Intepretation: This notation may be assigned to ships for which the Special Purpose Ship Safety Certificate is issued according to IMO Code of Safety for Special Purpose Ships or a standard acceptable to the Administration.This notation may be assigned separately, or as a special duty notation for certain ship types.

(2) Applicable ship type:

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	——	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	——	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

6.12 Traffic Ship

(1) Intepretation: For transporting personnel, but not as passenger transport service.

(2) Applicable ship type:

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2， Pt.6, Ch.1-3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

6.13 Well Stimulation

(1) Intepretation: Offshore engineering support ships used for or designed to be used for the operation of offshore well stimulation.

(2) Applicable ship type:

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	Well Stimulation Guidelines	Well Stimulation Guidelines
Machinery	——	Well Stimulation Guidelines	Well Stimulation Guidelines
Electricity	——	Well Stimulation Guidelines	Well Stimulation Guidelines

6.14 X Boat

(1) Intepretation: Ships dedicated to specific services. **X** is to be substituted by a specific service, e.g.:

Pilot Boat: Ships dedicated to pilot service; Anchor Boat: Ships dedicated to operations related to

anchoring and mooring;
Light Boat: Ships dedicated to serving as navigational marks; Diving Boat: Work boats dedicated to diving operations.
(2) Applicable ship type:
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1-2， Pt.6, Ch.1-3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

6.15 Training Ship
(1) Intepretation: Ships dedicated to training of marine personnel.
(2) Applicable ship type: Training ships
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	Steel Ship Rules, Pt.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

Chapter 7 Notations of Cargo and Loading Characteristics

7.1 Allowed combination of specified empty holds

(1) Intepretation: This notation is to be added after a harmonized notation when specified empty holds are allowed in design. The notation is applicable only to BC-A.

(2) Applicable ship type: Bulk carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.8	——	——
Machinery	——	——	——
Electricity	——	——	——

7.2 BC-A

(1) Intepretation: Bulk carriers are to be assigned this notation, provided they are designed to carry dry bulk cargoes of density 1.0 t/m^3 and above; have specified holds empty at maximum draught; have BC-B requirements included in loading conditions.

(2) Applicable ship type: Bulk carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.8; for CSR ship, Steel Ship Rules, Pt. 9-1, Ch. 1	——	——
Machinery	——	——	——
Electricity	——	——	——

7.3 BC-B

(1) Intepretation: Bulk carriers are to be assigned this notation, provided they are designed to carry dry bulk cargoes of density of 1.0 t/m^3 and above; have all cargo holds loaded; have BC-C requirements included in loading conditions.

(2) Applicable ship type: Bulk carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.8	——	——
Machinery	——	——	——
Electricity	——	——	——

7.4 BC-C

(1) Intepretation: Bulk carriers are to be assigned this notation, provided they are designed to carry dry bulk cargoes of density less than 1.0 t/m^3.

(2) Applicable ship type: Bulk carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.8	——	——
Machinery	——	——	——
Electricity	——	——	——

7.5 EL100

(1) Intepretation: Ore carriers meeting the requirements for easy loading may be assigned this notation.

(2) Applicable ship type: Ore carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules,Pt.2,Ch.16	——	——
Machinery	——	——	——
Electricity	——	——	——

7.6 Holds Nos. ×××may be Empty

(1) Intepretation: For bulk carriers with specified or alternate holds empty, this notation to be added after a harmonized notation

(2) Applicable ship type: Bulk carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.8	——	——
Machinery	——	——	——
Electricity	——	——	——

7.7 Holds Nos. ×××May Be Empty With Restrictions Imposed By SOLAS XII/14

(1) Intepretation: Existing ships, if not meeting the structural strength requirements for with standing flooding of any one cargo hold as specified in SOLAS regulation XII/5.1 and the strength standards and renewal criteria for single-side skin construction as specified in resolution MSC.168(79), are not to sail with any cargo hold loaded to less than 10% of the hold's maximum allowable cargo weight when in the full load condition, on and after 1 July 2006 or reaching 10 years of age, whichever is later.

(2) Applicable ship type: existing bulk carriers engaged on international voyages

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	SOLAS XII/14	——	——
Machinery	——	——	——
Electricity	——	——	——

7.8 Max. Cargo Density in XXX Tank（xx t/m3）

(1) Intepretation: ××× tank is designed to carry liquid cargo of density less than ×× t/m^3, the notation is only to be added after "Offshore Supply Ship".

(2) Applicable ship type: Offshore Supply Ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	——	——
Machinery	——	——	——
Electricity	——	——	——

7.9 Max. Cargo Temperature×××℃

(1) Intepretation: For bulk chemical tankers, the maximum temperature of the design cargo carried.

(2) Applicable ship type: Bulk chemical tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service

Hull	Bulk Chemical Tanker Rules, Pt.2, Ch.A4	——	——
Machinery	——	——	——
Electricity	——	——	——

7.10 Max.Cargo Density ×××t /m^3

(1) Intepretation: For liquefied gas carriers, scantlings of structural members of cargo tanks are determined to the maximum design pressure, maximum cargo density and minimum cargo temperature, in accordance with the characteristics of cargoes intended to be designed to be carried.

(2) Applicable ship type: Various liquefied gas carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2; Bulk Liquefied Gas Carrier Rules, Pt.2, Ch.A2	——	——
Machinery	Steel Ship Rules, Pt.3; Bulk Liquefied Gas Carrier Rules	——	——
Electricity	Steel Ship Rules, Pt.4;Bulk Liquefied Gas Carrier Rules	——	——

7.11 Max. Cargo Density ×××t /m^3

(1) Intepretation: For bulk chemical tankers, scantlings of structural members of cargo tanks are determined to the maximum design pressure, maximum temperature and maximum cargo density, in accordance with the characteristics of cargoes intended to be carried. Where the maximum permissible pressure/vacuum relief valve setting (gauge) of all tanks is combined with the associated maximum cargo density, the combination is to be marked: Max. Pressure XX MPa & Max. Cargo Density YY t/ m^3. Where the maximum permissible pressure/vacuum relief valve setting (gauge) of a certain group of tanks is combined with the associated maximum cargo density, the combination is to be marked: Max. Pressure XX MPa & Max. Cargo Density YY t/m^3 for Cargo Tanks No.ZZa, ZZb.

(2) Applicable ship type: Bulk chemical tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Bulk Chemical Tanker Rules, Pt.2, Ch.A4	——	——
Machinery	——	——	——
Electricity	——	——	——

7.12 Max. Pressure ×××MPa

(1) Intepretation: Same as 7.9

(2) Applicable ship type: Bulk chemical tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Bulk Chemical Tanker Rules, Pt.2, Ch.A4	——	——
Machinery	——	——	——
Electricity	——	——	——

7.13 Max.Vapour Pressure×××MPa

(1) Intepretation: Same as 7.12.
(2) Applicable ship type: Various liquided gas carriers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2; Bulk Liquefied Gas Carrier Rules, Pt.2, Ch.A2	——	——
Machinery	Steel Ship Rules, Pt.3; Bulk Liquefied Gas Carrier Rules	——	——
Electricity	Steel Ship Rules, Pt.4; Bulk Liquefied Gas Carrier Rules	——	——

7.14 Maximum Cargo Density （××t/m^3）

(1) Intepretation: This notation is to be added after a harmonized notation to show the limitation when maximum design cargo density is less than 3.0 t/m^3, and maximum allowed cargo density is to be indicated in the brackets. This notation is applicable only to BC-A and BC-B.
(2) Applicable ship type: Bulk carriers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.8	——	——
Machinery	——	——	——
Electricity	——	——	——

7.15 Minimum Cargo Temperature ×××℃

(1) Intepretation: Same as 7.12.
(2) Applicable ship type: Various liquided gas carriers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2; Bulk Liquefied Gas Carrier RulesPt.2, Ch.A2	——	——
Machinery	Steel Ship Rules, Pt.3; Bulk Liquefied Gas Carrier Rules	——	——
Electricity	Steel Ship Rules, Pt.4; Bulk Liquefied Gas Carrier Rules	——	——

7.16 NO MP

(1) Intepretation: This notation is to be added after a harmonized notation to show the limitation when the ship has not been designed for loading and unloading in multiple ports in accordance with the Rules. This notation is applicable to all harmonized notations (BC-A, BC-B, BC-C).
(2) Applicable ship type: Bulk carriers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.8	——	——
Machinery	——	——	——
Electricity	——	——	——

Chapter 8 Special Features Notations

8.1 ACC（DST）

(1) Intepretation: The basic Anti-Cold Climate notation, applicable for ships intended to operate in non-polar waters in low air temperature environments.

(2) Applicable ship type: Ships intended to operate in low air temperature environments

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23
Machinery	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23
Electricity	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23

8.2 ACC-POLAR（DST）

(1) Intepretation: The polar Anti-Cold Climate notation, applicable for ships intended to operate in polar waters in low air temperature environments.

(2) Applicable ship type: Ships intended to operate in low air temperature environments

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23
Machinery	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23
Electricity	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23

8.3 Anchor Handling

(1) Intepretation: Ships capable of handling anchors.

(2) Applicable ship type: Ships capable of handling anchors

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.20	Construction Monitoring Guidelines	Construction Monitoring Guidelines
Machinery	——	——	——
Electricity	——	——	——

8.4 Bottom strengthened for Operating Aground

(1) Intepretation: Bottom of dredgers strengthened for operating aground.

(2) Applicable ship type: Dredgers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.14	——	——
Machinery	——	——	——
Electricity	——	——	——

8.5 CBM（X）

(1) Intepretation: This notation may be assigned if a condition based maintenance plan of ship's

machinery installations or systems is developed in accordance with the analysis and assessment result of the operating condition and health condition of machinery installations or systems of a ship, with one or more notations affixed to identify the equipment for which the condition based maintenance is implemented, e.g. CBM(Cargo Pumps) is the condition based maintenance notation of cargo pumps.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Intelligent Machinery Guidelines	Intelligent Machinery Guidelines	Intelligent Machinery Guidelines
Machinery	Intelligent Machinery Guidelines	Intelligent Machinery Guidelines	Intelligent Machinery Guidelines
Electricity	Intelligent Machinery Guidelines	Intelligent Machinery Guidelines	Intelligent Machinery Guidelines

8.6 CEDI（Ox，Cx，Fx）

(1) Intepretation: Cruise ships assigned with class notation CEDI is to be affixed with one or more Ox, Cx, Fx marks, the meaning of which are as follows:

O_x – passenger occupation, including tonnage per passenger, living area per passenger and passenger to crew ratio;

C_x – comfort, including vibration, noise and indoor climate;

F_x – passenger leisure facilities, including facilities provided in passenger cabin, passenger public space and recreational and leisure spaces;

x is divided into grade 3, 4 and 5, matching the ship hardware such as space arrangement, equipment and system provision corresponding to 3 star and 3 star +, 4 star and 4 star +, 5 star and 5 star + used in the rating of cruise ship industry respectively, so as to achieve passenger occupation, comfort and functional needs required by relevant star rating at the design and construction stage of cruise ships.

(2) Applicable ship type: Cruise ships, passenger ships, ro-ro passenger ships, passenger container ships, discovery ships, research ships, etc.

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Cruise Ship Rules, Ch.5	Cruise Ship Rules App.1-2; Air-Conditioning System Guidelines	Cruise Ship Rules App.1-2; Air-Conditioning System Guidelines
Machinery	Cruise Ship Rules, Ch.5	Cruise Ship Rules App.1-2; Air-Conditioning System Guidelines	Cruise Ship Rules App.1-2; Air-Conditioning System Guidelines
Electricity	Cruise Ship Rules, Ch.5	Cruise Ship Rules App.1-2; Air-Conditioning System Guidelines	Cruise Ship Rules App.1-2; Air-Conditioning System Guidelines

8.7 CM

(1) Intepretation: Ships for which the control of structural precision at critical locations of hull (including alignment, fitting-up, edge treatment and technological standards) is in accordance with an approved plan. For tankers and bulk carriers subject to SOLAS Chapter II-1 Part A-1 Regulation 3-10 (Goal-based ship construction standards for bulk carriers and oil tankers) this class notation is necessary.

(2) Applicable ship type: Membrane tank LNG carriers and oil tankers, bulk carriers and container ships at length of 150 m or above

(3) Technical requirements:

	Technical requirements for	Technical requirments for	Technical requirements

	design/plan arppoval	newbuilding survey	for survey of ships in service
Hull	Construction Monitoring Guidelines	Construction Monitoring Guidelines	Construction Monitoring Guidelines
Machinery	——	——	——
Electricity	——	——	——

8.8 COMPASS

(1) Intepretation: For ships the design of which has been checked using ISC COMPASS- Rules system, one or more of the following suffixes R, D and F are to be added. Meanings of the suffixes are as follows:

R: for ships the check of which against rules has been performed using COMPASS- Rules;

D: for ships of which hull structure direct calculations have been performed using COMPASS-Rules;

F: for ships of which hull structure fatigue strength assessment has been performed using COMPASS- Rules.

Such notation is necessary for CSR ships

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	For non-CSR ships, see Fatigue Guidelines; For CSR ships, see Steel Ship Rules, Pt.9, Ch.9	——	——
Machinery	——	——	——
Electricity	——	——	——

8.9 CSR

(1) Intepretation: For ships designed and constructed in accordance with Common Structural Rules of PART NINE of ISC Steel Ship Rules, this notation is to be added after type notation.

(2) Applicable ship type: Bulk carriers, double-hull oil tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.9	——	——
Machinery	Steel Ship Rules, Pt.3	——	——
Electricity	Steel Ship Rules, Pt.4	——	——

8.10 Cyber Security

(1) Intepretation: This notation may be assigned to ships with satisfactory results of the assessment of cyber security of ships.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Network Assessment Guidelines	Network Assessment Guidelines	Network Assessment Guidelines
Machinery	Network Assessment Guidelines	Network Assessment Guidelines	Network Assessment Guidelines
Electricity	Network Assessment Guidelines	Network Assessment Guidelines	Network Assessment Guidelines

8.11 DE-ICE

(1) Intepretation: The DE-ICE notation, applicable for ships operating occasionally in low air temperature environments and in addition, for ships operating in areas and during periods where more severe ice and snow accretion are likely to occur.

(2) Applicable ship type: Ships on which more severe ice and snow accretion are likely to occur

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23
Machinery	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23
Electricity	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23

8.12 DSV-Air

(1) Intepretation: Ships provided with air diving system may be assigned this notation.

(2) Applicable ship type: Ships provided with air diving system

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25
Machinery	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25
Electricity	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25

8.13 DSV-Sat

(1) Intepretation: Ships provided with saturation diving system may be assigned this notation.

(2) Applicable ship type: Ships provided with saturation diving system

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25
Machinery	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25
Electricity	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25	Steel Ship Rules, Pt.8, Ch.25

8.14 ERS

(1) Intepretation: Upon prior ERS agreement between the owner and ISC and an electronic database for stability and structural strength of a ship, ISC will in case of emergency of the ship, e.g. collision at sea, grounding, oil spillage, etc., and at request of the owner, initiate an emergency response procedure to provide calculation and analysis for damage stability, structural strength and spillage, giving technical support to the ship in getting out of danger and recommendations to the owner/master in making final decision.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	——	——

Machinery	——	——	——
Electricity	——	——	——

8.15 ERS*

(1) Intepretation: Where ERS agreement or statement is signed by shipping company or shipping operator and ERS onshore service unit designated by the Administration, the notation may be added with the application of the owner.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	——	——
Machinery	——	——	——
Electricity	——	——	——

8.16 FL

(1) Intepretation: Where a ship is designed for a minimum design fatigue life of 25 years or more, the class notation FL may be assigned at 5-year intervals starting from the 25th year, e.g. FL (25), FL (30).

(2) Applicable ship type: Oil tankers, bulk carriers, container ships and ore carriers (neccery for over150m); membrane tank LNG carriers, independent tank liquefied gas carrires and vehicle carriers (necessary)

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	For non-CSR ships, see Fatigue Guidelines; For CSR ships, see Steel Ship Rules, Pt.9, Ch.9.	——	——
Machinery	——	——	——
Electricity	——	——	——

8.17 Grab* (×)

(1) Intepretation: Strengthening of inner bottom plating, lower strake of hopper tank sloping plate and transverse lower stool plating for holds of non-CSR ships designed for loading/unloading by grabs having a maximum weight up to ×tons.
×-unladen grab weight

(2) Applicable ship type: Ships carrying dry cargoes in bulk

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	——	——
Machinery	——	——	——
Electricity	——	——	——

8.18 GRAB [X]

(1) Intepretation: Strengthening of inner bottom plating, lower strake of hopper tank sloping plate and transverse lower stool plating for holds designed for loading/unloading by grabs having a maximum weight up to ×tons.
×-unladen grab weight

(2) Applicable ship type: CSR bulk carriers (necessary)

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in

			service
Hull	Steel Ship Rules, Pt. 9-1, Ch. 1	——	——
Machinery	——	——	——
Electricity	——	——	——

8.19 H (DST)

(1) Intepretation: The hull Anti-Cold Climate notation, applicable for materials used for hull structures of ships intended to operate in low air temperature environments.

(2) Applicable ship type: Ships intended to operate in low air temperature environments

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23
Machinery	——	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23
Electricity	——	Steel Ship Rules, Pt.8, Ch.23	Steel Ship Rules, Pt.8, Ch.23

8.20 Ice Class B

(1) Intepretation: Operation in very light ice conditions and if needed, with ice breaker assistance.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3,Ch.3&14	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	——	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

8.21 Ice Class B1

(1) Intepretation: Operation in severe ice conditions and if necessary, with ice breaker assistance. Maximum and minimum ice class draughts fore, amidships and aft, and minimum required main engine output to be stated in classification certificate.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3,Ch.3&14	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	——	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

8.22 Ice Class B1*

(1) Intepretation: Operation in severe ice conditions, not requiring ice breaker assistance. Maximum and minimum ice class draughts fore, amidships and aft, and minimum required main engine output to be stated in classification certificate.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for	Technical requirments for	Technical requirements

	design/plan arppoval	newbuilding survey	for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3,Ch.3&14	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	——	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

8.23 Ice Class B2

(1) Intepretation: Operation in moderate ice conditions and if needed, with ice breaker assistance. Maximum and minimum ice class draughts fore, amidships and aft, and minimum required main engine output to be stated in classification certificate.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3,Ch.3&14	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	——	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

8.24 Ice Class B3

(1) Intepretation: Operation in light ice conditions and if needed, with ice breaker assistance. Maximum and minimum ice class draughts fore, amidships and aft, and minimum required main engine output to be stated in classification certificate.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.4	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.3,Ch.3&14	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5
Electricity	——	Steel Ship Rules, Pt.1,Ch.4	Steel Ship Rules, Pt.1,Ch.5

8.25 Icebreaking

(1) Intepretation: Operation in first-year ice conditions and having independent icebreaking capability. This notation is to be used in conjunction with ice notations and added before the type notation, e.g. Icebreaking Tug, Ice Class B1.

(2) Applicable ship type: Ships withice class notations B3~B1*

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.9	——	——
Machinery	Steel Ship Rules, Pt.8, Ch.9	——	——
Electricity	——	——	——

8.26 i-Ship（Nx,Hx,Mx,Ex,Cx,I）

(1) Intepretation: This class notation is assigned to ships that are intelligent in one or more of the following aspects: navigation, hull, i machinery, energy efficiency management, cargo contorl and integration platform. The capital letter in the brackets can be

used in combination with x as appropriate, indicating the intelligent degree, detailed as follows:

N- Basic functions of intelligent navigation: route design and optimization

N_o - Autonomous navigtaion

N_n - Advanced autonomous navigation

H- Basic function of intelligent hull: Hull lifecycle management

H_m- Hull monitoring and assistant decision-making

M - Basic functions of intelligent Machinery: monitoring of the operating condition of main propulsion engine(s), engines used for auxiliary power generation and shafting; analysis and assessment of the operating condition and health condition of machinery installations and assistant decision-making

M_m- the condition-based maintenance based on condition monitoring is implemented for main propulsion engine(s) and parts

M_a - the condition-based maintenance based on condition monitoring is implemented for engines used for auxiliary power generation and its parts

M_p - the condition-based maintenance based on condition monitoring is implemented for propulsion shafting

E - Basic functions of intelligent energy efficiency managmenet: Online monitoring and collection of ship navigational condition, energy efficiency and energy-consuming condition and meteorological and environmental data, and providing evaluation, report, alarm and assistant decision-making

E_s- Speed optimization

E_t- Optimal stowage based on trim optimization

C- Cargo hold, cargo and cargo protection system monitoring alarm and assistant decision-making systems and cargo stowage system

Cl - Automatic cargo loading and unloading

I - Intelligent integration platform.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Intelligent Ship Rules, Ch.1& 3, Intelligent Hull Guidelines, Steel Ship Rules, Pt.8, Ch.21, 2017 Amendments, Pt.1, Ch.2	Intelligent Ship Rules, Ch.1& 3, Intelligent Hull Guidelines,Software Assessment Guidelines,Steel Ship Rules, Pt.8, Ch.21, 2017 Amendments, Pt.1, Ch.2	Intelligent Ship Rules, Ch.1& 3, Intelligent Hull Guidelines,Software Assessment Guidelines,Steel Ship Rules, Pt.8, Ch.21, 2017 Amendments, Pt.1, Ch.2
Machinery	Intelligent Ship Rules,Ch.1, 4,5, Intelligent Machinery Guidelines, Intelligent Energy Efficiency Guidelines, Software Assessment Guidelines，Steel Ship Rules, 2017 Amendments, Pt.1, Ch.2	Intelligent Ship Rules, Ch.1, 4,5, Intelligent Machinery Guidelines, Intelligent Energy Efficiency Guidelines，Software Assessment Guidelines，Steel Ship Rules, 2017 Amendments, Pt.1, Ch.2	Intelligent Ship Rules, Ch.1, 4,5, Intelligent Machinery Guidelines, Intelligent Energy Efficiency Guidelines，Software Assessment Guidelines，Steel Ship Rules, 2017 Amendments, Pt.1, Ch.2
Electricity	Intelligent Ship Rules,Ch.1-7, Intellligent Navigation Guidelines, Intelligent Hull Guidelines, Intelligent Machinery	Intelligent Ship Rules, Ch.1-7, Intellligent Navigation Guidelines, Intelligent Hull Guidelines，Intelligent Machinery Guidelines,，Intelligent Energy Efficiency	Intelligent Ship Rules, Ch.1-7, Intellligent Navigation Guidelines, Intelligent Hull Guidelines，Intelligent Machinery Guidelines,，Intelligent Energy Efficiency

	Guidelines, Intelligent Energy Efficiency Guidelines, Intelligent Cargo Guidelines, Intelligent Platform Guidelins, Software Assessment Guidelines，Steel Ship Rules, Pt.4 & 7, 2017 Amendments, Pt.1, Ch.2	Guidelines, Intelligent Cargo Guidelines, Intelligent Platform Guidelins, Software Assessment Guidelines，Steel Ship Rules, Pt.4 & 7, 2017 Amendments, Pt.1, Ch.2	Guidelines, Intelligent Cargo Guidelines, Intelligent Platform Guidelins, Software Assessment Guidelines，Steel Ship Rules, Pt.4 & 7, 2017 Amendments, Pt.1, Ch.2

8.27 Lining With Corrosion Resistant lining

(1) Intepretation: Cargo spaces of bulk chemical tankers are fitted with corrosion resistant lining.

(2) Applicable ship type: Bulk chemical tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Bulk Chemical Tanker Rules, Pt.2, Ch.A4	——	——
Machinery	——	——	——
Electricity	——	——	——

8.28 LSFO

(1) Intepretation: Ships intended to use low sulphur fuel oil with sulphur content not exceeding 0.10% (m/m) may be assigned this notation if the requirements of Guidelines for Use of Low Sulphur Fuel Oils in Ships are complied with.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	Low Sulphur Fuel Oil Guidelines	Low Sulphur Fuel Oil Guidelines
Machinery	Low Sulphur Fuel Oil Guidelines	——	——
Electricity	Low Sulphur Fuel Oil Guidelines	——	——

8.29 MCRS

(1) Intepretation: Corrosion resistant steel is used as an alternative to protective coating for cargo oil tanks of crude oil tankers in accordance with IMO resolution MSC.289(87).

(2) Applicable ship type: Crude oil tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Corrosion Resistant Steel Guidelines	——	——
Machinery	——	——	——
Electricity	——	——	——

8.30 PC1-PC7

（1） Intepretation:

PC 1 - Year-round operation in all polar waters

PC 2 - Year-round operation in moderate multi-year ice conditions

PC 3 - Year-round operation in second-year ice which may include multi-year ice

inclusions
PC 4 - Year-round operation in thick first-year ice which may include old ice inclusions
PC 5 -Year-round operation in medium first-year ice which may include old ice inclusions
PC 6 - Summer/autumn operation in medium first-year ice which may include old ice inclusions
PC 7 - Summer/autumn operation in thin first-year ice which may include old ice inclusions.

(2) Applicable ship type: PC1-PC7 ice classes

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.13	——	——
Machinery	Steel Ship Rules, Pt.8,Ch.13	——	——
Electricity	Steel Ship Rules, Pt.8,Ch.13	——	——

8.31 PSPC

(1) Intepretation: Ships of which specific spaces comply with IMO Performance Standard for Protective Coatings may be assigned this notation, with one or more of suffixes B, C, D and V being added thereafter. Meanings of the suffixes are as follows:

B: protective coatings applied in dedicated seawater ballast tanks of all types of ships;
C: protective coatings applied in cargo oil tank spaces of crude oil tankers;
D: protective coatings applied in double-side skin spaces;
V: protective coatings applied in void spaces of bulk carriers and oil tankers.
Note: B, C, D and V can operate both separately and together.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	IMO Res.MSC.215（82）; IMO Res.MSC.288（87）; IMO Res. MSC.244（83）	IMO Res. MSC.215（82）; IMO Res. MSC.288（87）; IMO Res. MSC.244（83）	IMO Res. MSC.215（82）; IMO Res. MSC.288（87）; IMO Res. MSC.244（83）
Machinery	——	——	——
Electricity	——	——	——

8.32 SEDI（x）

(1) Intepretation: Cruise ships comply with the requirements of Sanitation Ensurance Design Index may be assigned notation SEDI (x); Requirements in relation to hygiene and health , such as for galley and dining room, food storage, potable water, garbage, solid and medical waste, medical facilities, indoor environment are put forward; x is divided into grade 3, 4 and 5, matching the ship hardware such as space arrangement, equipment and system provision corresponding to 3 star and 3 star +, 4 star and 4 star +, 5 star and 5 star + used in the rating of cruise ship industry respectively, so as to achieve passenger occupation, comfort and functional needs required by relevant star rating at the design and construction stage of cruise ships

(2) Applicable ship type: cruise ships, passenger ships, ro-ro passenger ships, passenger-container ships, discovery ships, research ships, etc.

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Cruise Ship Rules, Ch.6	Cruise Ship Rules App. 1-3, Air-Conditioning System Guidelines	Cruise Ship Rules App. 1-3, Air-Conditioning System Guidelines
Machinery	Cruise Ship Rules, Ch.6	Cruise Ship Rules App. 1-3, Air-Conditioning System Guidelines	Cruise Ship Rules App. 1-3, Air-Conditioning System Guidelines
Electricity	Cruise Ship Rules, Ch.6	Cruise Ship Rules App. 1-3, Air-Conditioning System Guidelines	Cruise Ship Rules App. 1-3, Air-Conditioning System Guidelines

8.33 SFA

(1) Intepretation: SFA（25，North Atlantic）。This notation applies to fatigue assessment for specific routes and design fatitue life. The intended service area/route may be indicated additionally, e.g., for a membrane tank LNG carrier with a minimu design fatigue life of 25 years, navigating in North Atlantic Ocean service area, its class notation SFA may be: SFA (25, North Atlantic).

(2) Applicable ship type: Large membrane tank LNG carriers, ore carriers and container ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Spectrum-based Fatigue Guidelines	Spectrum-based Fatigue Guidelines	Spectrum-based Fatigue Guidelines
Machinery	——	——	——
Electricity	——	——	——

8.34 SOLAS II-2 Reg.19

(1) Intepretation: Ships fit for carriage of dangerous goods in packaged form or solid dangerous goods in bulk and holding a certificate of fitness for carriage of dangerous goods, may be assigned this notation at the request of the owner

(2) Applicable ship type: All ship types intended for carrying dangerous goods in packaged form or solid dangerous goods in bulk

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.6, Ch.1, SOLAS Reg. II-2/19	SOLAS Reg. II-2/19	SOLAS Reg. II-2/19
Machinery	Steel Ship Rules, Pt.6, Ch.1, SOLAS Reg. II-2/19	SOLAS Reg. II-2/19	SOLAS Reg. II-2/19
Electricity	Steel Ship Rules, Pt.6, Ch.1, SOLAS Reg. II-2/19	SOLAS Reg. II-2/19	SOLAS Reg. II-2/19

8.35 Stainless Steel

(1) Intepretation: Cargo spaces of bulk chemical tankers are constructed of stainless steel.

(2) Applicable ship type: Bulk chemical tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Bulk Chemical Tanker Rules, Pt.2, Ch.A4	——	——
Machinery	——	——	——

Electricity	——	——	——

8.36 Strengthened for Deck Cargoes

(1) Intepretation: The deck structure of specified deck cargo area is designed to be strengthened. The permissible loads, in XXX t/m^2, in cargo area of strengthened deck are to be indicated in operation documents. The notation is only to be added after "Offshore Supply Ship".

(2) Applicable ship type: Offshore supply ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch. 2,11	——	——
Machinery	——	——	——
Electricity	——	——	——

8.37 WD（××.××m）

(1) Intepretation: Marking the operating draft assigned to floating cranes, dredgers and hopper barges, with the value in the brackets indicating the maximum draft allowed for operations of these working ships, in m.

(2) Applicable ship type: Cranes, dredges and hopper barges

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.1	——	——
Machinery	——	——	——
Electricity	——	——	——

8.38 Strengthened For Heavy Cargoes

(1) Intepretation: Ships with longitudinal framing for strength deck and bottom within cargo area, and double bottom and strengthening for bottom framing within cargo area, may be assigned this notation.

(2) Applicable ship type: Dry cargo ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	——	——
Machinery	——	——	——
Electricity	——	——	——

Chapter 9 Automation Notations

9.1 AUT-0

(1) Intepretation: Main propulsion machinery remotely controlled from BCS, machinery space including ISC periodically unattended.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.7, Ch.1, 2, 3	Steel Ship Rules, Pt.7,Ch.1	Steel Ship Rules, Pt.1,Ch.5，Pt.7,Ch.1
Electricity	Steel Ship Rules, Pt.7, Ch.1, 2, 3	——	——

9.2 BRC

(1) Intepretation: Main propulsion machinery remotely controlled from BCS, machinery spaces constantly attended by watch-keepers.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.7, Ch.1, 2, 4	Steel Ship Rules, Pt.7,Ch.1	Steel Ship Rules, Pt.1,Ch.5，Pt.7,Ch.1
Electricity	Steel Ship Rules, Pt.7, Ch.1, 2, 4	Steel Ship Rules, Pt.7,Ch.1	Steel Ship Rules, Pt.1,Ch.5，Pt.7,Ch.1

9.3 MCC

(1) Intepretation: Ships with this notation are to be provided with ISC and LCS. When machinery and electrical equipment are in normal operation, ISC is to be constantly attended by watch-keepers.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.7, Ch.1, 2, 4	Steel Ship Rules, Pt.7,Ch.1	Steel Ship Rules, Pt.1,Ch.5，Pt.7,Ch.1
Electricity	Steel Ship Rules, Pt.7, Ch.1, 2, 4	Steel Ship Rules, Pt.7,Ch.1	Steel Ship Rules, Pt.1,Ch.5，Pt.7,Ch.1

Chapter 10 Special Equipment and System Notations

10.1 Auxiliary Propelling /Maneuvering Units

(1) Intepretation: For ships fitted with auxiliary propelling / maneuvering units which are intended not for navigation purposes, but only for locally adjusting operation position of the ship, this notation may be added.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.3, Ch.11-12	Steel Ship Rules, Pt.1,Ch.4-5; Pt.3, Ch.11	Steel Ship Rules, Pt.1 Ch.4-5; Pt.3, Ch.11
Electricity	——	——	——

10.2 Biodiesel Fuel

(1) Intepretation: This notation may be assigned to power ships fueled by biodiesel fuel or the mixture of biodiesel and regular fuel.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Alternative Fuel Guidelines, Pt.3	Alternative Fuel Guidelines, Pt.3	Alternative Fuel Guidelines, Pt.3
Electricity	Alternative Fuel Guidelines, Pt.3	Alternative Fuel Guidelines, Pt.3	Alternative Fuel Guidelines, Pt.3

10.3 Cargo Handling by Conveyer System

(1) Intepretation: For ships fitted with conveyors for cargo handling and capable of self-loading or self-unloading, this notation may be added. In the case of cement carriers fitted with compression operated cargo handling system, this notation may be replaced by the notation Air Slid Conveyer System, as necessary.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Lifting Appliance Rules	Lifting Appliance Rules	Lifting Appliance Rules
Machinery	Lifting Appliance Rules	Lifting Appliance Rules	Lifting Appliance Rules
Electricity	Lifting Appliance Rules	Lifting Appliance Rules	Lifting Appliance Rules

10.4 CLC

(1) Intepretation: Ships provided with onboard container lashing calculation programme may be assigned this notation.

(2) Applicable ship type: Container ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2, Ch.7, App.1,Ch.7, App. 1	Steel Ship Rules, Pt.1,Ch.6, Pt.2,Ch.7	Steel Ship Rules, Pt.1,Ch.6, Pt.2,Ch.7
Machinery	——	——	——
Electricity	——	——	——

10.5 CLC (V)

(1) Intepretation: Ships applying for securing of containers for specified voyage on the basis of notation CLC may be assigned this notation.

(2) Applicable ship type: Container ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.7,App.1	Steel Ship Rules, Pt.1,Ch.6, Pt.2,Ch.7	Steel Ship Rules, Pt.1,Ch.6，Pt.2,Ch.7
Machinery	——	——	——
Electricity	——	——	——

10.6 CLC（V，W）

(1) Intepretation: Ships applying for securing of containers for specified weather on the basis of notation CLC(V) may be assigned this notation.

(2) Applicable ship type: Container ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.7,App.1	Steel Ship Rules, Pt.1,Ch.6，Pt.2,Ch.7	Steel Ship Rules, Pt.1,Ch.6，Pt.2,Ch.7
Machinery	——	——	——
Electricity	——	——	——

10.7 DFD

(1) Intepretation: The class notation may be assigned to liquefied gas carriers fitted with dual fuel diesel engines as power plant in compliance with the requirements of the Guidelines.

(2) Applicable ship type: Liquefied gas carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers
Electricity	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers	《Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers

10.8 DFDR（X1,…,XN）

(1) Intepretation: A ship assigned with the class notation of DFDR may has one or more suffix(es) of XN. The intention of XN is as follows:

H: the hull structures have been strengthened in accordance with the relevant requirements of natural gas fuel powered ships

T: the natural gas fuel containment system (bunkers/fuel tanks) and its supporting members have been installed

M: the main engine installed in ship's construction is a dual fuel engine

m: main engine installed in ship's construction may be converted to a dual fuel engine in future

A: the auxiliary engine installed in ship's construction is a dual fuel engine

a: the auxiliary engine installed in ship's construction may be converted to a dual fuel engine in future

B: the boiler installed in ship's construction is a dual fuel boiler

P: the arrangement in ship's construction has been considered the approaching installation of

natural gas fuel supply system and related to, including the arrangement of piping, bunkering station, compressor room, gas valve unit, fire-fighting system, etc.
E: the power distribution system has been reserved for the equipment related to natural gas fuel powered system in ship's construction
D: the gas dangerous zones have been taken into consideration in ship's construction
Note: It must be alternative to the suffixes M or m; it is optional for the other suffixes.
(2) Applicable ship type: Steel ships at length of 20 m or above fuelled by natural gas, excluding liquefied gas carriers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Guidelines for Natural Gas Fuel Ready Ships, Ch.1-3	Guidelines for Natural Gas Fuel Ready Ships, Ch.1 & 4	Guidelines for Natural Gas Fuel Ready Ships, Ch.1 & 4
Machinery	Guidelines for Natural Gas Fuel Ready Ships, Ch.1-3	Guidelines for Natural Gas Fuel Ready Ships, Ch.1 & 4	Guidelines for Natural Gas Fuel Ready Ships, Ch.1 & 4
Electricity	Guidelines for Natural Gas Fuel Ready Ships, Ch.1-3	Guidelines for Natural Gas Fuel Ready Ships, Ch.1 & 4	Guidelines for Natural Gas Fuel Ready Ships, Ch.1 & 4

10.9 DP-N

(1) Intepretation: Vessels with dynamic positioning systems are to be assigned this notation, with N being one of the following:
1 — Vessels with dynamic positioning systems can automatically keep their position and heading within specified environmental conditions. In addition, independent centralized manual position control and automatic heading control are to be provided.
2 — Vessels with dynamic positioning systems can automatically keep their position and heading in case of a single failure (excluding loss of a cabin or cabins) within specified environmental conditions and operating limits.
3 — Vessels with dynamic positioning systems can automatically keep their position and heading in case of a single failure (including total loss of a cabin caused by fire or flooding) within specified environmental conditions and operating limits.
(2) Applicable ship type: Vessels or mobile offshore units with dynamic positioning systems
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.11	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.3, Pt.8,Ch.11	Steel Ship Rules, Pt.8,Ch.11	Steel Ship Rules, Pt.8,Ch.11
Electricity	Steel Ship Rules, Pt.4, Pt.8,Ch.11	Steel Ship Rules, Pt.8,Ch.11	Steel Ship Rules, Pt.8,Ch.11

10.10 ECL

(1) Intepretation: This notation may be assigned to ships the decks of which are loaded with containers and specially designed for the safety of securing personnel.
(2) Applicable ship type: Container ships and ships the decks of which are loaded with containers
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in

			service
Hull	Steel Ship Rules, Pt.8,Ch.22	——	——
Machinery	——	——	——
Electricity	Steel Ship Rules, Pt.8,Ch.22	——	——

10.11 EGC Ready（X）

(1) Intepretation: For EGC Ready (X) class notation, the symbol X stands for the type of the EGC system, including:

D: dry desulfurization system, expressed by the capital letter D;

O: open loop exhaust gas cleaning system;

C: closed loop exhaust gas cleaning system;

H: open-closed hybrid composite system.

X is to be replaced by one of the four letters above based on the type of the EGC system intended to be installed.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Guidelines for Exhaust Gas Cleaning Systems Ready	Guidelines for Tests and Surveys of Exhaust Gas Cleaning Systems	Guidelines for Tests and Surveys of Exhaust Gas Cleaning Systems
Machinery	Guidelines for Exhaust Gas Cleaning Systems Ready	Guidelines for Tests and Surveys of Exhaust Gas Cleaning Systems	Guidelines for Tests and Surveys of Exhaust Gas Cleaning Systems
Electricity	Guidelines for Exhaust Gas Cleaning Systems Ready	Guidelines for Tests and Surveys of Exhaust Gas Cleaning Systems	Guidelines for Tests and Surveys of Exhaust Gas Cleaning Systems

10.12 Electrical Propulsion System

(1) Intepretation: For ships fitted with electrical propulsion system, this notation may be added.

(2) Applicable ship type: Ships fitted with electrical propulsion system

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8 Ch.15	Steel Ship Rules, Pt.8 Ch.15	Steel Ship Rules, Pt.8 Ch.15
Machinery	——	——	——
Electricity	Steel Ship Rules, Pt.4, Pt.8 Ch.15	Steel Ship Rules, Pt.4; Pt.8 Ch.15	Steel Ship Rules, Pt.4; Pt.8 Ch.15

10.13 FC-FULL

(1) Intepretation: This notation may be assigned provided that: the ship is not provided with other power source except the fuel cell power system, and the fuel cell power system provides power to all equipment onboard the ship (propulsion, steering gears and other essential equipment, emergency equipment as well as other equipment).

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——

Machinery	Fuel Cell Guidelines, Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines,Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines, Alternative Fuel Guidelines Pt.2,
Electricity	Fuel Cell Guidelines, Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines,Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines,Alternative Fuel Guidelines Pt.2,

10.14 FC-POWER 1

(1) Intepretation: This notation may be assigned provided that: the ship is provided with the diesel generating set and the fuel cell power system, and the fuel cell power system provides power to essential equipment of the ship.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Fuel Cell Guidelines, Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines,Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines, Alternative Fuel Guidelines Pt.2,
Electricity	Fuel Cell Guidelines, Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines, Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines, Alternative Fuel Guidelines Pt.2,

10.15 FC-POWER 2

(1) Intepretation: This notation may be assigned provided that: the ship is provided with the diesel generating set and the fuel cell power system, and the fuel cell power system provides power to non-essential equipment and non-emergency equipment.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Fuel Cell Guidelines，Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines Alternative Fuel Guidelines Pt.2,
Electricity	Fuel Cell Guidelines，Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines Alternative Fuel Guidelines Pt.2,	Fuel Cell Guidelines Alternative Fuel Guidelines Pt.2,

10.16 GF

(1) Intepretation: The class notation may be assigned to liquefied gas carriers fitted with gas fuel only engines as power plant in compliance with the requirements of the Guidelines.

(2) Applicable ship type: Liquefied gas carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers
Electricity	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers	Guidelines for Design and Installation of Gas Fuel Engine Systems of Liquefied Gas Carriers

10.17 HMS

(1) Intepretation: This notation may be assigned when only sensors monitoring the global longitudinal stress amidships are installed in the hull monitoring system.
(2) Applicable ship type: Various ships installed with hull monitoring system
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.21	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	——	——	——
Electricity	——	——	——

10.18 HMS (×)

(1) Intepretation: This notation may be assigned when not only sensors monitoring the global longitudinal stress amidships are installed in the hull monitoring system, but also sensors/ components monitoring other parameters are selected, where within the brackets there will be letters specifying the selected sensors/components and multiple letters are separated by a comma ",". The following sensors/ components may be selected for the hull monitoring system:
Gn: Sensor monitoring the global hull strain
Dn: Sensor monitoring the local hull strain
On: Sensor monitoring the propulsion shaft(s) output
An: Sensor monitoring the axial acceleration
Mn: Device for monitoring of hull rigid body motions (six degrees of freedom)
Pn: Sensor monitoring the transient sea pressure acting on the hull (slamming)
Sn: Sensor monitoring the liquid motion pressures in tanks (sloshing)
Tn: Sensor monitoring the temperature
Bn: Device for monitoring the wave
Wn: Wind sensor
Nn: Navigation sensors
Cn: Online link to loading computer that is continuously up-dating the loading condition
Note: n denotes the number of sensors or devices.
(2) Applicable ship type: Various ships installed with hull monitoring system
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.21	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	——	——	——
Electricity	——	——	——

10.19 HMS-HSC

(1) Intepretation: This notation may be assigned to the hull monitoring system installed on high speed craft.
(2) Applicable ship type: Various ships installed with hull monitoring system
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.21	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	——	——	——
Electricity	——	——	——

10.20 Lifting Appliance

(1) Intepretation: Marine lifting appliances. When lifting appliance is deternmined as a basic feature of a classified ship, e.g. lifting applicance of a floating cranes or

submersible hoisting and launching system of a submersible support ship, Lifting Appliance is a mandatory class notation. In other cases, this notation can by voluntarily selected by ship owner. For floating cranes, this notation is to be added together with the notation Floating Crane.

(2) Applicable ship type: Ships with marine lifting appliances

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Lifting Appliance Rules	Lifting Appliance Rules	Lifting Appliance Rules
Machinery	——	——	——
Electricity	Lifting Appliance Rules	——	——

10.21 LPB

(1) Intepretation: For ships fitted with lithium iron phosphate battery, this notation may be added.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	——	——	——
Electricity	Guidelines for Survey of Solar Photovoltaic System and Lithium Iron Phosphate Battery System, Ch.3	Guidelines for Survey of Solar Photovoltaic System and Lithium Iron Phosphate Battery System, Ch.3	Guidelines for Survey of Solar Photovoltaic System and Lithium Iron Phosphate Battery System, Ch.3

10.22 LPG Fuel System

(1) Intepretation: For ships using liquefied petroleum gas as fuel, this notation may be added.

(2) Applicable ship type: Steel ships for domestic voyages at length of 20 m or above fuelled by liquefied petroleum gas, but not applicable to passenger ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Ships Powered by Gas Fuel Guidelines, Ch.1, 2	Ships Powered by Gas Fuel Guidelines, Ch.1	Ships Powered by Gas Fuel Guidelines, Ch.1
Machinery	Ships Powered by Gas Fuel Guidelines, Ch. 2, 3, 6	Ships Powered by Gas Fuel Guidelines, Ch.1	Ships Powered by Gas Fuel Guidelines, Ch.1
Electricity	Ships Powered by Gas Fuel Guidelines, Ch. 4, 5,7	——	——

10.23 Methyl/Ethyl Alcohol Fuel

(1) Intepretation: This notation may be assigned to power ships fueled by methyl/ethyl/ alcohol.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Alternative Fuel Guidelines Pt.1	Alternative Fuel Guidelines Pt.1	Alternative Fuel Guidelines Pt.1
Electricity	Alternative Fuel Guidelines Pt.1	Alternative Fuel Guidelines Pt.1	Alternative Fuel Guidelines Pt.1

10.24 Natural Gas Fuel

(1) Intepretation: This notation may be assigned to ships of which main propulsion and/or auxiliary machinery uses natural gas or fuel oil and natural gas as fuel, except for liquefied gas carriers.

(2) Applicable ship type: Steel ships at length of 20 m or above using natural gas as fuel, except for liquefied gas carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Rules for Natural Gas Fuelled Ships, Ch.1	Rules for Natural Gas Fuelled Ships, Ch.1	Rules for Natural Gas Fuelled Ships, Ch.1
Machinery	Rules for Natural Gas Fuelled Ships, Ch.2-6, 8, 11, 13	Rules for Natural Gas Fuelled Ships, Ch.1	Rules for Natural Gas Fuelled Ships, Ch.1
Electricity	Rules for Natural Gas Fuelled Ships, Ch.9, 11, 12	Rules for Natural Gas Fuelled Ships, Ch.1	Rules for Natural Gas Fuelled Ships, Ch.1

10.25 Non-propulsion

(1) Intepretation: This notation is assigned to those ships not fitted with propulsion equipment used for main propulsion purposes or those ships fitted with propulsion machinery used only for purposes such as lateral thrusting, operational actions or auxiliary propulsion during tugging, and is to be added after the type notation. In case of a type notation indicating that the ship is not self-propelling, e.g. "Barge, Oil Barge, Pontoon Barge, Floating Dock, Hopper Barge, Split Hopper Barge", this notation need not be added.

(2) Applicable ship type: Ships not fitted with propulsion machinery

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.3, Ch.11, 12	Steel Ship Rules, Pt.1,Ch.4; Pt.3, Ch.11	Steel Ship Rules, Pt.1,Ch.5; Pt.3, Ch.11
Electricity	——	——	——

10.26 OMBO

(1) Intepretation: Arrangement of bridge and wheelhouse together with navigational equipment and system are suitable for one man bridge operated ships.

(2) Applicable ship type: One man bridge operated ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.4	Steel Ship Rules, Pt.8, Ch.4	Steel Ship Rules, Pt.8, Ch.4
Machinery	——	——	——
Electricity	Steel Ship Rules, Pt.4; Pt.8, Ch.4	Steel Ship Rules, Pt.4; Pt.8, Ch.4	Steel Ship Rules, Pt.4; Pt.8, Ch.4

10.27 PR-N

(1) Intepretation: Ships, of which the main propulsion machinery and/or the steering gear is provided with redundancy, may be assigned this notation wherein the letter N indicates one of the following cases:

1 – A ship fitted with two or more propulsion machines but only a single propulsor and a single steering system.

2 – A ship fitted with two or more propulsion machines and also two or more propulsors and two or more steering systems.

1S– A ship fitted with only a single propulsor and a single steering system but having two or more propulsion machines arranged in separate compartments.

2S– A ship fitted with two or more propulsion machines and also two or more propulsors and two

or more steering systems, having the propulsion machines, propulsors and associated steering systems arranged in separate compartments.

(2) Applicable ship type: Various ships with redundant propulsion

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.8, Ch.14	——	——
Electricity	Steel Ship Rules, Pt.8, Ch.14	——	——

10.28 SCR Ready（X）

(1) Intepretation: In assigning class notation SCR Ready(X), X is to be replaced by U or A, the meaning of which are as follows:

U: SCR with reductant using aqueous urea solution;

A: SCR with reductant using aqueous ammonia

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	SCR Ready Guidelines	SCR Ready Guidelines	SCR Ready Guidelines
Machinery	SCR Ready Guidelines	SCR Ready Guidelines	SCR Ready Guidelines
Electricity	SCR Ready Guidelines	SCR Ready Guidelines	SCR Ready Guidelines

10.29 SPV

(1) Intepretation: For ships fitted with solar photovoltaic system, this notation may be added.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	——	——	——
Electricity	Guidelines for Survey of Solar Photovoltaic System and Lithium Iron Phosphate Battery System, Ch. 2-3	Guidelines for Survey of Solar Photovoltaic System and Lithium Iron Phosphate Battery System, Ch. 2	Guidelines for Survey of Solar Photovoltaic System and Lithium Iron Phosphate Battery System, Ch. 2

10.30 VCS

(1) Intepretation: For ships fitted with systems for control of vapour emission from tanks in compliance with the Rules (excluding requirements for VCS-T), this notation may be added.

(2) Applicable ship type: Cargo tankers such as oil tankers, bulk chemical tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.3, Ch.15	Steel Ship Rules, Pt.1, Ch.4, 6	Steel Ship Rules, Pt.1, Ch. 5, 6
Electricity	Steel Ship Rules, Pt.3, Ch.15; Pt.4	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6

10.31 VCS-T

(1) Intepretation: For ships fitted with systems for control of vapour emission from tanks in compliance with the Rules, this notation may be added.

(2) Applicable ship type: Cargo tankers such as oil tankers, bulk chemical tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.3, Ch.15	Steel Ship Rules, Pt.1, Ch.4, 6	Steel Ship Rules, Pt.1, Ch. 5, 6
Electricity	Steel Ship Rules, Pt.3, Ch.15; Pt.4	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6

10.32 Water Jet Units

(1) Intepretation: For ships fitted with water jet units, this notation may be added.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	High Speed Craft Rules,Ch.6	——	——
Electricity	——	——	——

10.33 Z-Propulsion

(1) Intepretation: For ships fitted with Z-propulsion system, this notation may be added.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.3, Ch.11, 12	Steel Ship Rules, Pt.1,Ch.4; Pt.3, Ch.11	Steel Ship Rules, Pt.1,Ch.5; Pt.3, Ch.11
Electricity	——	——	——

10.34 CBT

(1) Intepretation: This notation may be added for ships fitted with clean ballast tanks.

(2) Applicable ship type: Oil tankers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	MARPOL ANNEX I	MARPOL ANNEX I	Steel Ship Rules, Pt.1,Ch.5，MARPOL ANNEX I
Machinery	MARPOL ANNEX I	MARPOL ANNEX I	Steel Ship Rules, Pt.1,Ch.5，MARPOL ANNEX I
Electricity	——	——	——

10.35 COW

(1) Intepretation: This notation may be added for ships fitted with crude oil washing system.

(2) Applicable ship type: Crude oil tankers

(3) Technical requirements:

	Technical requirements	Technical requirments for	Technical requirements

	for design/plan arppoval	newbuilding survey	for survey of ships in service
Hull	——	——	——
Machinery	MAPROL Annex I Reg.33 & 35, Specifications for the Design, Operation and Control of Crude Oil Washing Systems adopted by IMO A.497（XII）and amended by A.497（XII）and A.897（21）, The Standard Format of The COW Manual adopted by MEPC.3（XII）and amended by MEPC.81（43）	MAPROL Annex I Reg.33 & 35, Specifications for the Design, Operation and Control of Crude Oil Washing Systems adopted by IMO A.497（XII） and amended by A.497（XII）and A.897（21）, The Standard Format of The COW Manual adopted by MEPC.3（XII）and amended by MEPC.81（43）	MAPROL Annex I Reg.33 & 35, Specifications for the Design, Operation and Control of Crude Oil Washing Systems adopted by IMO A.497（XII） and amended by A.497（XII）and A.897（21）, The Standard Format of The COW Manual adopted by MEPC.3（XII）and amended by MEPC.81（43）
Electricity	——	——	——

10.36 Emergency Towing Arrangements

(1) Intepretation: Tankers provided with emergency towing arrangements may be assigned this notation.

(2) Applicable ship type: Cargo tankers, including oil tankers, chemical tankers and liquefied gas carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.3	——	——
Machinery	——	——	——
Electricity	——	——	——

10.37 Equipped with Container Securing Arrangements

(1) Intepretation: Ships other than container ships fitted with container securing arrangements may be assigned this notation.

(2) Applicable ship type: Non-container ships, dry cargo ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.7	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	——	——	——
Electricity	——	——	——

10.38 Equipped with Single Point Mooring Connecting installation

(1) Intepretation: Ships equipped with single point mooring connecting installation according to relevant requirements are to be assigned the notation.

(2) Applicable ship type: Ships equipped with single point mooring connecting installation

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Standards acceptable by ISC(e.g. OCIMF Mooring Guidelines)	Standards acceptable by ISC(e.g. OCIMF Mooring Guidelines)	Standards acceptable by ISC(e.g. OCIMF Mooring Guidelines)
Machinery	——	——	——

Electricity	——	——	——

10.39 Helicopter Facilities

(1) Intepretation: For ships with areas and structures for takeoff and landing of helicopters, and storage, fire protection and oil supply facilities for helicopters, this notation may be added.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	——	——	——
Electricity	——	——	——

10.40 IGS

(1) Intepretation: For ships provided with inert gas system.Note: “IGS” has the same meaning as “Inert Gas System”.

(2) Applicable ship type: Cargo tankers (including chemical tankers)

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.6, Ch.1& 4, SOLAS Reg. II-2/4.5.5, FSS Code Ch.15	Steel Ship Rules, Pt.6, Ch.1& 4, SOLAS Reg. II-2/4.5.5, FSS Code Ch.15	Steel Ship Rules, Pt.6, Ch.1& 4, SOLAS Reg. II-2/4.5.5, FSS Code Ch.15
Electricity	——	——	——

10.41 Loading Computer

(1) Intepretation: Ships provided with approved loading computers are to be assigned this notation, with one or more of suffixes OA, S, I, G and D being added thereafter.
Meanings of the suffixes are as follows:

OA: Capable of calculating optimal trim curve in each loading condition and creating optimal energy-saving loading plan by automatic optimization;

S: Capable of calculating and checking hull strength under various loading conditions;

I: Capable of calculating and checking intact stability;

G:Capable of calculating and checking stability of grain in bulk;

D: Capable of calculating and checking damage stability.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.2,Ch.2,App. 1-2, Loading Computer Guidelines	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	——	——	——
Electricity	——	——	——

10.42 SBT

(1) Intepretation: This notation may be added for ships fitted with segregated ballast tanks.Where segregated ballast tanks are in a protective location, the notation PL is to be added after SBT.

(2) Applicable ship type: Oil tankers

(3) Technical requirements:

	Technical	Technical requirments for	Technical requirements for

	requirements for design/plan arppoval	newbuilding survey	survey of ships in service
Hull	MARPOL ANNEX I	MARPOL ANNEX I	Steel Ship Rules, Pt.1,Ch.5，MARPOL ANNEX I
Machinery	MARPOL ANNEX I	MARPOL ANNEX I	Steel Ship Rules, Pt.1,Ch.5，MARPOL ANNEX I
Electricity	——	——	——

Chapter 11 Special Survey Notations

11.1 CHS

(1) Intepretation: Where continuous survey system for hull is adopted in lieu of special survey and items required in special survey are to be surveyed in regular rotation with uniform annual share within the five-year class period, this notation may be assigned and applies to ships other than general dry cargo ships, oil tankers, combination carriers, chemical tankers and bulk carriers only.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.1,Ch.5	——	Steel Ship Rules, Pt.1,Ch.5
Machinery	——	——	——
Electricity	——	——	——

11.2 CMS

(1) Intepretation: Where continuous survey system for machinery is adopted in lieu of special survey and items required in special survey are to be surveyed in regular rotation with uniform annual share within the five-year class period, this notation may be assigned.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.1,Ch.5	——	Steel Ship Rules, Pt.1,Ch.5
Electricity	——	——	——

11.3 ECM

(1) Intepretation: This notation may be assigned to ships having lubricating oil condition monitoring system of diesel engines and complying with Appendix 15 “Guidelines for Lubricating Oil Condition Monitoring System of Diesel Engines” of Ch. 5 of PART ONE. Lubricating oil analysis is to cover lubricating oil in use for cylinders, pistons, piston rings, piston rods, piston pins, crossheads, crosshead pins, guides, crankshafts and all bearings, connecting rods, piston rod stuffing boxes. Results of the analysis are to be used to determine whether an overhaul is necessary.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.1,Ch.5 and App. 15	Steel Ship Rules, Pt.1, App. 15, Diesel Engine Lubricating Oil Monitoring Guidelines	Steel Ship Rules, Pt.1,Ch.5 and App. 15, Diesel Engine Lubricating Oil Monitoring Guidelines
Electricity	——	——	——

11.4 ESP

(1) Intepretation: This notation is required for oil tankers, oil/bulk carriers, oil/bulk/ore carriers, chemical tankers, bulk carriers, self-unloading bulk carriers engaged on

international voyages. This notation is optional by the owner for oil tankers, oil/bulk carriers, oil/bulk/ore carriers, chemical tankers, bulk carriers, self-unloading bulk carriers subject to ESP and engaged on non-international voyages, with attention being given to the special requirements of the flag States.

(2) Applicable ship type: Oil tankers, oil/bulk carriers, oil/bulk/ore carriers, chemical tankers, bulk carriers, self-unloading bulk carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.1,Ch.2,App. 2 and Ch.5	Steel Ship Rules, Pt.1,Ch.2, App.2	Steel Ship Rules, Pt.1, Ch.2, App.2 and Ch.5
Machinery	——	——	——
Electricity	——	——	——

11.5 In-Water Survey

(1) Intepretation: For ships suitable for in-water surveys, this notation may be assigned.

(2) Applicable ship type: Ships subject to In-Water Survey notations

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.1,Ch.5， Pt.8,Ch.12	——	Steel Ship Rules, Pt.1,Ch.5
Machinery	Steel Ship Rules, Pt.8,Ch.12	——	——
Electricity	Steel Ship Rules, Pt.8,Ch.12	——	——

11.6 PAUT（20%/40%/70%）

(1) Intepretation: When the following welds are tested by PAUT, if the testing percentage complies with the following requirements, the corresponding notations may be assigned upon application by the ship owner.

PAUT(20%): the percentage of welds inspected by PAUT is more than 20%.

PAUT(40%): the percentage of welds inspected by PAUT is more than 40%.

PAUT (70%): the percentage of welds inspected by PAUT is more than 70%.

Survey extent of container ships: all block-to-block butt joints of all upper flange longitudinal structural members in the cargo hold region (thickness≥35 mm), including the topmost strakes of the inner hull/bulkhead, the sheer strake, main deck, coaming plate, coaming top plate, and all attached longitudinal stiffeners.

Survey extent of ore carriers: butt welds of the main deck in the cargo area (thickness≥35 mm); full penetration welds between the longitudinal bulkhead and inner bottom plating; full penetration weld connections between lower stool and the inner bottom plating; full penetration weld connections between the lower stool slope plate and lower stool shelf plate; full penetration weld connections between the lower stool shelf plate and transverse bulkhead.

Survey extent of LNG and LPG carriers: full penetration welds of integral tanks or independent tanks, excluding membrane tanks.

(2) Applicable ship type: Container ships, ore carriers, LNG nd LPG carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	TOFD and PAUT Guidelines	TOFD and PAUT Guidelines
Machinery	——	TOFD and PAUT Guidelines	TOFD and PAUT Guidelines
Electricity	——	TOFD and PAUT Guidelines	TOFD and PAUT Guidelines

11.7 PMS

(1) Intepretation: This notation may be assigned to ships for which ISC-approved PMS is adopted as an alternative to special or continuous (if adopted) survey of machinery and electrical installations.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.1,Ch.5 and App.16	Steel Ship Rules, Pt.1, App.16, PMS Guidelines	Steel Ship Rules, Pt.1,Ch.5 and App.16, PMS Guidelines
Electricity	——	——	——

11.8 SCM

(1) Intepretation: This notation may be assigned to oil-lubricated or water-lubricated propeller shafts fitted with approved shaft seals and complying with Appendix 14 "Guidelines for Screwshaft Condition Monitoring System" of Ch. 5 of PART ONE.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.1,Ch.5 and App.14	Steel Ship Rules, Pt.1, App.14 Screwshaft Monitoring Guidelines	Steel Ship Rules, Pt.1,Ch.5, and App.14 Screwshaft Monitoring Guidelines
Electricity	——	——	——

11.9 TOFD（20%/40%/70%）

(1) Intepretation: When the following welds are tested by TOFD, if the testing percentage complies with the following requirements, the corresponding notations may be assigned upon application by the ship owner.

TOFD(20%): the percentage of welds inspected by TOFD is more than 20%.

TOFD(40%): the percentage of welds inspected by TOFD is more than 40%.

TOFD(70%): the percentage of welds inspected by TOFD is more than 70%.

Survey extent of container ships: all block-to-block butt joints of all upper flange longitudinal structural members in the cargo hold region (thickness≥35 mm), including the topmost strakes of the inner hull/bulkhead, the sheer strake, main deck, coaming plate, coaming top plate, and all attached longitudinal stiffeners.

Survey extent of ore carriers: butt welds of the main deck in the cargo area (thickness≥35 mm).

Survey extent of LNG and LPG carriers: full penetration welds of integral tanks or independent tanks, excluding membrane tanks weld and fillet weld.

(2) Applicable ship type: Container ships, ore carriers, LNG and LPG carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	TOFD and PAUT Guidelines	TOFD and PAUT Guidelines
Machinery	——	TOFD and PAUT Guidelines	TOFD and PAUT Guidelines
Electricity	——	TOFD and PAUT	TOFD and PAUT

		Guidelines	Guidelines

11.10 TOFD/PAUT（20%/40%/70%）

(1) Intepretation: When the following welds are tested by TOFD/PAUT, if the testing percentage complies with the following requirements, the corresponding notations may be assigned upon application by the ship owner.

TOFD/PAUT(20%): the percentage of welds inspected by TOFD/PAUT is more than 20%.

TOFD/PAUT(40%): the percentage of welds inspected by TOFD/PAUT is more than 40%.

TOFD/PAUT (70%): the percentage of welds inspected by TOFD/PAUT is more than 70%.

Survey extent of container ships: all block-to-block butt joints of all upper flange longitudinal structural members in the cargo hold region (thickness≥35 mm), including the topmost strakes of the inner hull/bulkhead, the sheer strake, main deck, coaming plate, coaming top plate, and all attached longitudinal stiffeners. See the figure below.

Survey extent of ore carriers: butt welds of the main deck in the cargo area (thickness≥35 mm).

Survey extent of LNG and LPG carriers: full penetration welds of integral tanks or independent tanks, excluding membrane tanks weld and fillet weld.

(2) Applicable ship type: Container ships, ore carriers, LNG and LPG carriers

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	TOFD and PAUT Combined Inspection Guidelines	TOFD and PAUT Combined Inspection Guidelines
Machinery	——	TOFD and PAUT Combined Inspection Guidelines	TOFD and PAUT Combined Inspection Guidelines
Electricity	——	TOFD and PAUT Combined Inspection Guidelines	TOFD and PAUT Combined Inspection Guidelines

Chapter 12 Environmental Protection Notations

12.1 AFS

(1) Intepretation: This notation may be assigned to ships, of which anti-fouling system is not to contain any biocides.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8
Electricity	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.2 AMPS

(1) Intepretation: The class notation may be assigned to a ship fitted with a high-voltage shore connection system having rated alternating voltage above 1 kV and up to and including 15 kV for supplying shore power while in port so as to ensure normal operation of equipment intended to be used when generating sets of the ship are stopped.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	——	——	——
Electricity	Steel Ship Rules, Pt.8, Ch.19	Steel Ship Rules, Pt.8, Ch.19	Steel Ship Rules, Pt.8, Ch.19

12.3 Biofouling-C

(1) Intepretation: The Biofouling-C notation may be assigned for ship having a biofouling management plan, which is prepared in accordance with 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species adopted by IMO by resolution MEPC.207(62) and to be approved by ISC.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	——	——	——
Electricity	——	——	——

12.4 BWMP

(1) Intepretation: For ships implementing approved ballast water management plan on board.

(2) Applicable ship type: All ship types（ships carrying ballast water on international voyages—mandatory）

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	BWMP Guidelines	BWMP Guidelines	BWMP Guidelines

Machinery	BWMP Guidelines	BWMP Guidelines	BWMP Guidelines
Electricity	BWMP Guidelines》	BWMP Guidelines	BWMP Guidelines

12.5 BWMS

(1) Intepretation: Ship's ballast water management system must be approved and comply with the requirements for the installation and arrangements of the Steel Ship Rules.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Ship	Steel Ship Rules, Pt.8, Ch.8, 26	Steel Ship Rules, Pt.8, Ch.8, 26	Steel Ship Rules, Pt.8, Ch.8, 26
Machinery	Steel Ship Rules, Pt.8, Ch.8, 26	Steel Ship Rules, Pt.8, Ch.8, 26	Steel Ship Rules, Pt.8, Ch.8, 26
Electricity	Steel Ship Rules, Pt.8, Ch.8, 26	Steel Ship Rules, Pt.8, Ch.8, 26	Steel Ship Rules, Pt.8, Ch.8, 26

12.6 CLEAN

(1) Intepretation: This notation may be assigned to ships complying with relevant requirements for pollution-preventing structures, equipment and operational procedures in ISC rules, in addition to statutory requirements for pollution prevention.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8
Electricity	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.7 COMF（NOISE N）

(1) Intepretation: This notation may be assigned if the noise levels in related spaces of the ship meet the Rule requirements for comfort of crew and passengers, with N = 1 or 2 or 3 indicating different comfort levels, where 1 represents the highest comfort level.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8, Ch.16	Steel Ship Rules, Pt.8, Ch.16	Steel Ship Rules, Pt.8, Ch.16
Machinery	——	——	——
Electricity	——	——	——

12.8 COMF（VIB N）

(1) Intepretation: This notation may be assigned if the vibration levels in related spaces of the ship meet the Rule requirements for comfort of crew and passengers, with N = 1 or 2 or 3 indicating different comfort levels, where 1 represents the highest comfort level.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in

			service
Hull	Steel Ship Rules, Pt.8, Ch.16	Steel Ship Rules, Pt.8, Ch.16	Steel Ship Rules, Pt.8, Ch.16
Machinery	——	——	——
Electricity	——	——	——

12.9 Crew Accommodation (MLC)

(1) Intepretation: This notation may be assigned to ships meeting the plan approval and construction requirements for accommodation of crew members on board sea-going ships in ISC Guidelines, in addition to those statutory requirements.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	2006 Maritime Labour Convention	2006 Maritime Labour Convention	2006 Maritime Labour Convention
Machinery	——	2006 Maritime Labour Convention	2006 Maritime Labour Convention
Electricity	——	2006 Maritime Labour Convention	2006 Maritime Labour Convention

12.10 EAL

(1) Intepretation: The EAL notation may be assigned for ships the lubricants used for the oil/water interfaces complying with the relevant provisions on environmentally acceptable lubricants as specified in ISC Guidelines for implementation of the survey of the requirements for environmentally acceptable lubricants by US EPA.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	US EAL Guidelines	US EAL Guidelines
Machinery	US EAL Guidelines	——	——
Electricity	US EAL Guidelines	——	——

12.11 EEDI (I)

(1) Intepretation: The ship's attained EEDI value is equivalent to the requirement for EEDI Phase 0 of MARPOL Annex VI.

(2) Applicable ship type: Bulk carriers, cargo tankers, container ships, gas carriers, LNG carriers, dry cargo ships, refrigerated cargo ships, combination cariers, passenger ships, ro-ro passenger ships, ro-ro cargo ships, ro-ro vehicle carriers, offshore supply ships, cruise ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines
Machinery	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines
Electricity	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines

12.12 EEDI (II +)

(1) Intepretation: The ship's attained EEDI is equivalent to the requirement for EEDI Phase 2 of MARPOL Annex VI.

(2) Applicable ship type: Bulk carriers, cargo tankers, container ships, gas carriers, LNG carriers, dry cargo ships, refrigerated cargo ships, combination cariers,

passenger ships, ro-ro passenger ships, ro-ro cargo ships, ro-ro vehicle carriers, offshore supply ships, cruise ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines
Machinery	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines
Electricity	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines

12.13 EEDI (II)

(1) Intepretation: The ship's attained EEDI value is equivalent to the requirement for EEDI Phase 1 of MARPOL Annex VI.

(2) Applicable ship type: Bulk carriers, cargo tankers, container ships, gas carriers, LNG carriers, dry cargo ships, refrigerated cargo ships, combination cariers, passenger ships, ro-ro passenger ships, ro-ro cargo ships, ro-ro vehicle carriers, offshore supply ships, cruise ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines
Machinery	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines
Electricity	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines

12.14 EEDI (III)

(1) Intepretation: The ship's attained EEDI value is equivalent to the requirement for EEDI Phase 3 of MARPOL Annex VI.

(2) Applicable ship type: Bulk carriers, cargo tankers, container ships, gas carriers, LNG carriers, dry cargo ships, refrigerated cargo ships, combination cariers, passenger ships, ro-ro passenger ships, ro-ro cargo ships, ro-ro vehicle carriers, offshore supply ships, cruise ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines
Machinery	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines
Electricity	Green Ship Rules, Ch.2	EEDI Guidelines	EEDI Guidelines

12.15 FTP

(1) Intepretation: This notation may be assigned to ships with double-hull protection or equivalent protective measures.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8
Electricity	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.16 FTP (+)

(1) Intepretation: This notation may be assigned to ships with all fuel tanks provided with double-hull protection.

(2) Applicable ship type: All ship types
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8
Electricity	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.17 GPR

(1) Intepretation: The ship is to carry the Inventory of Hazardous Materials verified by ISC and complying with the requirements of Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009.
(2) Applicable ship type: All ship types
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines
Machinery	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines
Electricity	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines

12.18 GPR（EU）

(1) Intepretation: The ship is to carry the Inventory of Hazardous Materials verified by ISC and complying with the requirements of EU Regulation No.1257/2013.
(2) Applicable ship type: All ship types
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines
Machinery	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines
Electricity	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines	Ship Inventory of Hazardous Material Guidelines

12.19 Green Ship I

(1) Intepretation: The green elements of the ship in terms of environmental protection, energy efficiency (including design energy efficiency and operation energy efficiency) and working environment comply with all applicable requirements for Green Ship I.
(2) Applicable ship type: All ship types
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in

			service
Hull	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7
Machinery	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7
Electricity	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7

12.20 Green Ship II

(1) Intepretation: The green elements of the ship in terms of environmental protection, energy efficiency (including design energy efficiency and operation energy efficiency) and working environment comply with all applicable requirements for Green Ship II.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7
Machinery	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7
Electricity	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7

12.21 Green Ship III

(1) Intepretation: The green elements of the ship in terms of environmental protection, energy efficiency (including design energy efficiency and operation energy efficiency) and working environment comply with all applicable requirements for Green Ship III.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7
Machinery	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7
Electricity	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7	Green Ship Rules, Ch. 1, 5-7

12.22 GWC

(1) Intepretation: This notation may be assigned to ships having control of drainage from laundry, bathroom, galley, accommodation and fitted with a grey water holding tank of required capacity, high level alarm and a sewage disposal system with required processing capacity.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8
Electricity	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.23 HAB (VIB)

(1) Intepretation: This notation may be assigned if the vibration levels in related spaces of the ship meet the habitability requirements regarding crew and passengers in ISO 6954.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Vibration Guidelines, Ch.15, 15.2	Vibration Guidelines, Ch.15, 15.2	Vibration Guidelines, Ch.15, 15.2
Machinery	——	——	——
Electricity	——	——	——

12.24 IBTS

(1) Intepretation: The IBTS notation may be assigned for ships the management and discharge arrangements of the bilge water from machinery spaces complying with the requirements of the integrated bilge water treatment system (IBTS) as specified in MEPC.1/Circ.642, as revised by MEPC.1/Circ.676 and MEPC.1/Circ.760.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	——	——
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Electricity	——	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.25 NEC (II)

(1) Intepretation: In compliance with standards of Tier II in MARPOL Annex VI.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Electricity	——	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6

12.26 NEC (III)

(1) Intepretation: In compliance with standards of Tier III in MARPOL Annex VI.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Electricity	——	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6

12.27 NEC (SCRS)

(1) Intepretation: Ships installed with the SCR systems for reduction of NOx emission may be assigned this notation.
(2) Applicable ship type: All ship types
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	SCR Application Guidelines	SCR Application Guidelines	SCR Application Guidelines
Machinery	SCR Application Guidelines	SCR Application Guidelines	SCR Application Guidelines
Electricity	SCR Application Guidelines	SCR Application Guidelines	SCR Application Guidelines

12.28 RSC

(1) Intepretation: This notation may be assigned to ships, of which all refrigerants used are to have an Ozone Depleting Potential (ODP) rating of zero and a Global Warming Potential (GWP) of less than 2,000.
(2) Applicable ship type: All ship types
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8
Electricity	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.29 SEC（EGCS）

(1) Intepretation: Ships installed with the EGC systems for reduction of SOx emission may be assigned this notation.
(2) Applicable ship type: All ship types
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	EGCS Design and Installation Guidelines	EGCS Design and Installation Guidelines	EGCS Design and Installation Guidelines
Machinery	EGCS Design and Installation Guidelines	EGCS Design and Installation Guidelines	EGCS Design and Installation Guidelines
Electricity	EGCS Design and Installation Guidelines	EGCS Design and Installation Guidelines	EGCS Design and Installation Guidelines

12.30 SEC（I）

(1) Intepretation: Sulphur content of all fuel oils used on board is not to exceed 1.0% (m/m) or equivalent means are used.
(2) Applicable ship type: All ship types
(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8

Electricity	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.31 SEC（II）

(1) Intepretation: Sulphur content of all fuel oils used on board is not to exceed 0.5% (m/m) or equivalent means are used.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8
Electricity	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.32 SEC（III）

(1) Intepretation: Sulphur content of all fuel oils used on board is not to exceed 0.1% (m/m) or equivalent means are used.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8
Machinery	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8	Steel Ship Rules, Pt.1,Ch.6，Pt.8,Ch.8
Electricity	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8	Steel Ship Rules, Pt.8,Ch.8

12.33 SEEMP（I）

(1) Intepretation: The ship is to have a Ship Energy Efficiency Management Plan (SEEMP) developed in accordance with the relevant IMO guidelines.

(2) Applicable ship type: All ship types（Except for platforms and FPSOs/FSUs）

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Green Ship Rules, Ch.2	SEEMP Plan	SEEMP Plan
Machinery	Green Ship Rules, Ch.2	SEEMP Plan	SEEMP Plan
Electricity	Green Ship Rules, Ch.2	SEEMP Plan	SEEMP Plan

12.34 SEEMP（II）

(1) Intepretation: For a ship with notation SEEMP(I), where a ship energy efficiency management system is established by the Company or the Operator of the ship and certified by ISC, this notation may be assigned.

(2) Applicable ship type: All ship types（Except for platforms and FPSOs/FSUs）

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Green Ship Rules, Ch.2	SEEMP Plan	SEEMP Plan
Machinery	Green Ship Rules, Ch.2	SEEMP Plan	SEEMP Plan
Electricity	Green Ship Rules, Ch.2	SEEMP Plan	SEEMP Plan

12.35 SEEMP（III）

(1) Intepretation: For a ship with notation SEEMP(II), where a ship has software for real time monitoring of e.g. route optimization and hull biofouling so as to monitor relevant parameters affecting ship energy efficiency and/or adjust energy efficiency measures at any time, this notation may be assigned.

(2) Applicable ship type: All ship types（Except for platforms and FPSOs/FSUs）

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Green Ship Rules, Ch.2	SEEMP Plan	SEEMP Plan
Machinery	Green Ship Rules, Ch.2	SEEMP Plan	SEEMP Plan
Electricity	Green Ship Rules, Ch.2	SEEMP Plan	SEEMP Plan

12.36 VIB

(1) Intepretation: This notation may be assigned if the ship meets the requirements for both structural vibration VIB(S) and mechanical vibration VIB(M).

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	Vibration Guidelines, Ch.15, 15.3, 15.4	Vibration Guidelines, Ch.15, 15.3, 15.4
Machinery	——	——	——
Electricity	——	——	——

12.37 VIB（M）

(1) Intepretation: This notation may be assigned if related machineries of the ship meet the mechanical vibration requirements in the Guidelines for Shipboard Vibration Control and no damage due to mechanical fatigue or accelerated wear of moving parts will be caused.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	Vibration Guidelines, Ch.15, 15.4	Vibration Guidelines, Ch.15, 15.4
Machinery	——	——	——
Electricity	——	——	——

12.38 VIB（S）

(1) Intepretation: This notation may be assigned if related machineries of the ship meet the mechanical vibration requirements in the Guidelines and no damage due to mechanical fatigue or accelerated wear of moving parts will be caused.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Vibration Guidelines, Ch.15, 15.3	Vibration Guidelines, Ch.15, 15.3	Vibration Guidelines, Ch.15, 15.3
Machinery	——	——	——
Electricity	——	——	——

Chapter 13 Refrigerated Cargo Installation Notations

13.1 CF

(1) Intepretation: For refrigerated installations for cargo fruits, this notation is to be added.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.5, Ch.1& 3,	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.5,Ch.1,2	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Electricity	Steel Ship Rules, Pt.5,Ch.1,2	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6

13.2 CRC （××Holds），AC f/WC

(1) Intepretation: For container ships capable of carrying refrigerated containers in holds, this notation may be added, where:

AC — Air-cooled refrigerated containers; f — Simultaneity factor for refrigerating plant; WC — Water-cooled refrigerated containers.

(2) Applicable ship type: Container ships

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.5,Ch.4	——	——
Machinery	Steel Ship Rules, Pt.5,Ch.4	——	——
Electricity	Steel Ship Rules, Pt.5,Ch.4	——	——

13.3 CRS （××Hold ××℃，××℃ Max.Sea Water）

(1) Intepretation: For ships fitted with refrigerated cargo installations, this notation is to be added after type notation, and minimum temperature(s) to be maintained by the installation at maximum sea water temperature stated and cargo area covered by the minimum temperature(s) are to be stated.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.5, Ch.1& 3,	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.5,Ch.1,2	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Electricity	Steel Ship Rules, Pt.5,Ch.1,2	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6

13.4 QF

(1) Intepretation: For refrigerated cargo installations having a quick-freezing capability for fishing vessels, this notation is to be added.

(2) Applicable ship type: Fishing vessels

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Steel Ship Rules, Pt.5, Ch.1& 3,	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	Steel Ship Rules, Pt.5,Ch.1,2	Steel Ship Rules,	Steel Ship Rules,

		Pt.1,Ch.6	Pt.1,Ch.6
Electricity	Steel Ship Rules, Pt.5,Ch.1,2	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6

Chapter 14 Other Notations

14.1 EOM

(1) Intepretation: Capable of monitoring ship's operation in real time and supporting decision on operational energy efficiency management and optimization by collecting operational parameters of ship's energy-consuming equipment and navigational equipment and synchronizing with shore-based equipment.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	Steel Ship Rules, Pt.1,Ch.6	Steel Ship Rules, Pt.1,Ch.6
Machinery	——	——	——
Electricity	——	——	——

14.2 HIMS

(1) Intepretation: Periodical inspection and maintenance scheme for hull structure and deck equipment. By implementation of scheme, which is implemented by means of computerized management system, improving the management level of crew and superintendent in terms of inspection and maintenance of hull structure and deck equipment, avoiding any impact on the normal operation of ships due to unplanned repair, improving the hull structural safety management level and achieving scientific management of ships.

(2) Applicable ship type: All ship types

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	——	HIMS Guidelines	HIMS Guidelines
Machinery	——		
Electricity	——		

Chapter 15 Diving Systems and Submersibles Notations

15.1 ADS

(1) Intepretation: A hard diving suit which is anthropomorphic, has movable joints in limbs and is permanently maintained at the pressure of one atmosphere inside.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.2 DB

(1) Intepretation: A device used for underwater observation by personnel or transfer of divers between the work location and the deck decompression chamber.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.3 DDC

(1) Intepretation: The equipment installed on an attendant ship or an offshore unit for compression and decompression of divers, and for human occupancy under pressure in saturation diving.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.4 DS

(1) Intepretation: The whole plant and equipment necessary for transfer of divers conducting diving operations using transfer-under-pressure techniques generally include a diving bell, a deck decompression chamber, handling system, etc.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements	Technical requirments for	Technical requirements for

	for design/plan arppoval	newbuilding survey	survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.5 MS

(1) Intepretation: A submersible operated by the occupant. Such submersibles can be divided into two types according to the pattern of power supply, i.e. free self-propelled submersibles powered by themselves and tethered submersibles the power of which is supplied through umbilical from an attendant ship or an offshore unit. The latter can further be divided into propelled ones and towed ones depending on whether the means of propulsion is fitted on board or not.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.6 Passenger Submersible Craft

(1) Intepretation: A type of manned free self-propelled submersible craft which transports or carries passengers, and can be used for sightseeing and touring under water.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.7 PSC

(1) Intepretation: A type of manned submersible craft which transports or carries passengers, and can be used for sightseeing under water.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles	Submersibles Guidelines	Submersibles Guidelines

	Guidelines Ch.10, 11, 15	Ch.1, 2, 10, 11, 15	Ch.1, 2, 10, 11, 15

15.8 ROV

(1) Intepretation: An unmanned underwater vehicle which is remotely operated. Such vehicles are divided into, according to the pattern of control, tethered ones operated through umbilical and non-tethered ones operated through sound wave.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.9 ROVS

(1) Intepretation: This notation may be assigned to ships provided with unmanned remotely operated vehicle and associated support systems (handling devices, control station, etc.).

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.10 SDCC

(1) Intepretation: A complex intended for training divers and conducting researches in a simulative environment.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.11 SL

(1) Intepretation: A submersible in which there are locks for lock-in/lock-out of divers during diving operations.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements	Technical requirments for	Technical requirements for

	for design/plan arppoval	newbuilding survey	survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15

15.12 UH

(1) Intepretation: An underwater chamber installed on the ocean floor, intended for working, resting and living of divers or other occupants. It may be maintained, according to working requirements, at ambient pressure or at the pressure of one atmosphere.

(2) Applicable ship type: ——

(3) Technical requirements:

	Technical requirements for design/plan arppoval	Technical requirments for newbuilding survey	Technical requirements for survey of ships in service
Hull	Submersibles Guidelines	Submersibles Guidelines	Submersibles Guidelines
Machinery	Submersibles Guidelines Ch.8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15	Submersibles Guidelines Ch.1, 2, 8, 9, 12, 15
Electricity	Submersibles Guidelines Ch.10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15	Submersibles Guidelines Ch.1, 2, 10, 11, 15