RULES FOR CLASSIFICATION OF

# Ships

PART 1 CHAPTER 2

GENERAL REGULATIONS

# Class Notations

JULY 2011



DET NORSKE VERITAS AS

# FOREWORD

DET NORSKE VERITAS (DNV) is an autonomous and independent foundation with the objectives of safeguarding life, property and the environment, at sea and onshore. DNV undertakes classification, certification, and other verification and consultancy services relating to quality of ships, offshore units and installations, and onshore industries worldwide, and carries out research in relation to these functions.

The Rules lay down technical and procedural requirements related to obtaining and retaining a Class Certificate. It is used as a contractual document and includes both requirements and acceptance criteria.



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# CHANGES

## General

The present edition of the rules includes amendments and additions approved by the Executive Committee as of June 2011 and supersedes the January 2011 edition of the same chapter.

The rule changes come into force as described below.

Text affected by the main rule changes is highlighted in red colour in the electronic pdf version. However, where the changes involve a whole chapter, section or sub-section, only the title may be in red colour.

This chapter is valid until superseded by a revised chapter.

### Main changes coming into force 1 July 2011

- **Sec.1 Class Notations**

— Table C1:
  — The qualifiers **Vessel** and **Barge** have been included for the optional notation **Wind Turbine Installation**. Rule references have been corrected.
  — New class notation **Windfarm Maintenance** has been added.

— Table C2: Class notations **REGAS-1** and **REGAS-2** have been merged into **REGAS**.
— Table C4: Class notation **RATE-A** has been deleted.

### Main changes coming into force 1 January 2012

- **Sec.1 Class Notations**

— Table B6: Notations **BC-B***, **ES(D)**, **ES(O)** and **ES(S)** are removed. Notations **BC-A**, **BC-B**, **BC-C**, **HC-A**, **HC-B**, **HC-B***, **HC-C**, and **HC-M** are updated in accordance with Pt.5 Ch.2 Sec.5.
— Table C1:
  — New class notation **Barge for "C"** has been added.
  — New class notation **SafeLash** has been added.

— Table C7: "Application" is updated for class notation **Nauticus (Newbuilding)** in accordance with Pt.5 Ch.2 Sec.5.

- **Sec.2 Historical Class Notations**

— In Table A1 "Class Notations no longer used for newbuildings", the following class notations have been added:
  — **BC-B***, **ES(D)**, **ES(O)** and **ES(S)**.

## Corrections and Clarifications

In addition to the above stated rule requirements, a number of corrections and clarifications have been made to the existing rule text.

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# SECTION 1
# CLASS NOTATIONS

## A. General

### A 100 Class notations

**101** Class notations are assigned in order to determine applicable rule requirements for assignment and retention of class. Class notations cover mandatory and optional requirements (see Table A1).

**102** Applicable class notations are given in Tables B3 to B6 (mandatory notations) and Tables C1 to C7 (optional class notations).

**103** Class notations may be given a supplemental symbol. The supplement is used to identify special requirements or limitations related to the class notation.

**104** Examples of typical class notations are shown in Table A2.

**105** Class notations with no specific survey requirements are marked with N/A in Tables B3-B6 and Tables C1-C7.

**Table A1 Class notations structure**

| | |
|---|---|
| Mandatory class notations | Construction symbol, see B200 |
| | Main character of class, see B300 |
| | Service area restriction, see B400 |
| | Main ship types, survey scheme and class notations for additional strengthening, see Table B3, B4, B5 and B6 |
| Optional class notations | Related to ship types, see Table C1 |
| | Related to cargo, see Table C2 |
| | Related to service area, see Table C3 |
| | Related to survey scheme, see Table C4 |
| | Related to equipment and systems, see Table C5 |
| | Related to design features, see Table C6 |
| | NAUTICUS notations, see Table C7 |

**Table A2 Typical class notations**

| | | *Example 1* | *Example 2* | *Example 3* |
|---|---|---|---|---|
| Mandatory class notations | Construction symbol, see B200 | ✠ | ✠ | ✠ |
| | Main character of class, see B300 | **1A1** | **1A1** | **1A1** |
| | Main ship types, see Table B4 | **Bulk Carrier ESP** | **Tanker for Oil ESP** | |
| | Mandatory survey scheme related to a survey scheme for bulk and ore carriers and tankers, see Table B5 | **ESP** | **ESP** | |
| | Additional class notations for main ship types, see Table B6 | **ES(S) CSR BC-A Holds 2,4,6 may be empty** | **CSR** | |
| Optional class notations | Related to ship types, see Table C1 | | | **Offshore Service Vessel** |
| | Related to cargo, see Table C2 | | | **LFL** |
| | Related to service area, see Table C3 | **ICE-1A** | | |
| | Related to Survey scheme, see Table C4 | **TMON** | **TMON** | **CLEAN** |
| | Related to equipment and systems, see Table C5 | **E0** | **E0 VCS-2** | **DEICE E0 F-AM RPS NAUT-AW HELDK-SH** |
| | Related to design features, see Table C6 | | **PLUS** | **SF** |
| | NAUTICUS notations, see Table C7*) | **NAUTICUS (Newbuilding)** | | |

*) For certain types of ships, the **NAUTICUS (Newbuilding)** notation is mandatory and part of main class.

## B. Mandatory Class Notations

### B 100 General

**101** All ships being assigned class with the Society will be given a class notation consisting of a construction symbol, a main character of class, service area restriction notations and main ship type notations, as applicable.

### B 200 Construction symbols

**201** The construction symbol ✠ will be assigned to ships built under the supervision of the Society.

**202** The construction symbol ✢ will be assigned to ships built under the supervision of a recognized classification society and later assigned class with the Society. For such ships the class notations which the Society considers to have the equivalent intent will be assigned.

**203** Ships other than those described in 201 and 202, will not be assigned construction symbol when classed with the Society.

### B 300 Main character of class

**301** The notation **1A1** will be assigned to ships with hull, machinery, systems and equipment found to be in compliance with applicable rule requirements as given in Pt.2, Pt.3 and Pt.4.

**302** The notation **1A1** will also be assigned to ships designed and constructed in accordance with the rules of another classification society, and later assigned class with the Society.

### B 400 Service restrictions

**401** The service area notation **R** followed by a number or a letter will be assigned to ships with certain modifications to arrangement, equipment or scantlings, in relation to ships built for unrestricted trade.

The service area restrictions, given in nautical miles and representing the maximum distance from nearest port or safe anchorage, are given in Table B1. For the various service area notations the restrictions are related to the zones, areas and seasonal periods as defined in the International Convention on Load Lines, 1966, Annex II.

The service area notation **RE** is limited to enclosed waters such as fjords, ports, rivers and lakes.

The service area restrictions as related to the assigned service area notation will be included in the "Appendix to the Class Certificate".

**Table B1 Service area restrictions**

| *Service area notations* | *Seasonal zones (nautical miles)* | | |
|---|---|---|---|
| | *Winter* | *Summer* | *Tropical* |
| **R0** | 250 | No restrictions | No restrictions |
| **R1** | 100 | 200 | 300 |
| **R2** | 50 | 100 | 200 |
| **R3** | 20 | 50 | 100 |
| **R4** | 5 | 10 | 20 |
| **RE** | Enclosed waters | | |

**402** Modified requirements related to the various service area notations are given in the relevant sections of the rules. The modifications will affect:

— design hull girder loads
— design pressures on shell, weather decks, superstructures and deckhouses
— anchoring and mooring equipment
— arrangement
— stability.

**403** The flag authority whose domestic requirements are being applied under the provision of Ch.1 Sec.2 A307 (local trade), shall be indicated in parentheses after the service area notation, by using lower-case country codes in accordance with ISO 3166, (e.g. **R2 (nor)**, should the flag authority be Norway or **R2 (usa)** should the flag authority be U.S.A. etc.).

**404** Other service restrictions or operational limits included in the design assumptions for a ship will be stated in the "Appendix to the Class Certificate", and/or on special signboards.

### B 500 Modified rule requirements related to size and general arrangement

**501** Modified rule requirements related to the size of the ship and its general arrangement are given in Table B2.

| Table B2 Modified rule requirements | |
|---|---|
| *Rule set* | *Size and arrangement* |
| Pt.3 Ch.1 Sec.1<br>Pt.3 Ch.2 Sec.1 | regarding definition of length (barge/push-tug) |
| Pt.3 Ch.1 Sec.3<br>Pt.3 Ch.2 Sec.3 | regarding subdivision |
| Pt.3 Ch.1 Sec.5<br>Pt.3 Ch.2 Sec.5 | regarding hull section modulus |
| Pt.3 Ch.1 Sec.13 | regarding connection barge and push-tug |
| Pt.3 Ch.3 Sec.3 | regarding anchoring and mooring equipment |
| Pt.4 Ch.6 Sec.4 | regarding bilge pumping for ships less than 100 gross tonnage |
| Pt.4 Ch.8 Sec.3 | regarding electrical installations (outside tropical waters) |
| Pt.4 Ch.10 Sec.2 | regarding fire safety measures on cargo ships of less than 500 gross tonnage |

### B 600 Main ship types

**601** Ships that comply with additional requirements given in Pt.5 will be given a ship type class notation. A *passenger ship* is a ship which carries more than twelve passengers. A *cargo* ship is any ship which is not a passenger ship.

**602** A passenger ship will be given the main class notation **Passenger Ship** or a main ship type class notation given in Table B3.

**603** A cargo ship of the types shown in Table B4 will be given the corresponding main ship type class notation.

**604** Cargo ships with class notations shown in Table B4 will be amended with a mandatory survey scheme class notation as given in Table B5.

**605** Additional mandatory class notations for main ship types arranged and/or strengthened for a special service are given in Table B6.

**606** The class notation for main ship types given in Table B3 and B4, may be replaced by alternative ship type class notations as shown in Table C1.

### B 700 Class notations - main ship types - passenger ships

**701** Table B3 gives mandatory main ship type class notations for passenger ships.

| Table B3 Main ship type class notations - passenger ships | | | | | |
|---|---|---|---|---|---|
| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
| **Passenger Ship** | | Ship designed primarily for carriage of passengers | Passenger ships, mandatory as of July 1995 | Pt.5 Ch.2 Sec.2 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Car and Train Ferry** | **A** | Ro/Ro ship designed for regular transport of passengers and vehicles. Vehicles on enclosed decks | Car and train ferries | Pt.5 Ch.2 Sec.3 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **B** | Ro/Ro ship designed for regular transport of passengers and vehicles. Vehicles on weather decks only. Requires operating restriction **R2** or stricter | | | |
| **Car Ferry** | **A** | Ro/Ro ship designed for regular transport of passengers and cars. Cars on enclosed decks | Car ferries | Pt.5 Ch.2 Sec.3 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **B** | Ro/Ro ship designed for regular transport of passengers and cars. Cars on open decks only. Requires operating restriction **R2** or stricter | | | |
| **Train Ferry** | **A** | Ro/Ro ship designed for regular transport of passengers and trains. Trains on enclosed decks | Train ferries | Pt.5 Ch.2 Sec.3 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **B** | Ro/Ro ship designed for regular transport of passengers and trains. Trains on open decks only. Requires operating restriction **R2** or stricter | | | |

## B 800 Class notations - main ship types - cargo ships

**801** Table B4 gives mandatory main ship type class notations for cargo ships.

**Table B4 Main ship type class notations - cargo ships**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **Bulk Carrier** | | Ships designed for carriage of solid bulk cargoes | Bulk carriers | Pt.5 Ch.2 Sec.5 and Sec.8 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Bulk Carrier or Tanker for Oil** | | Ships intended for separate carriage of oil and dry cargoes in bulk. | Combination carriers | Pt.5 Ch.3 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Container Carrier** | | Ships exclusively intended for the carriage of containers | Container carriers | Pt.5 Ch.2 Sec.6 | Pt.7 Ch.1 Sec.4 A and B |
| **Ore Carrier** | | Ships designed for carriage of ore cargoes in centre holds | Ore carriers | Pt.5 Ch.2 Sec.5 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Ore Carrier or Tanker for Oil** | | Ships intended for separate carriage of oil and/ore in bulk | Combination carriers | Pt.5 Ch.3 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Semi-Submersible Heavy Transport Vessel** | | Specially intended for loading and unloading cargo by submerging the freeboard deck through ballast operations | | Pt.5 Ch.7 Sec.21 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Tanker for** | **C** | Specific types of liquid chemicals. C denotes the type of cargo for which the ship is classed. | Chemical carriers. Cargoes not requiring full compliance with Pt.5 Ch.4 Sec.1 to 14. Chemical carriers according to the IBC or BHC code | Pt.5 Ch.4 Sec.1 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **Chemicals** | All types of liquid chemicals | Chemical carriers. Cargoes listed in IBC Code Ch. 17 and 18 with additions given in IMO MEPC.2/Circ.xx List 1. | | |
| | **Compressed Natural Gas** | Ships intended for transportation of compressed natural gas | Compressed natural gas carriers | Pt.5 Ch.15 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **Liquefied Gas** | Ships intended for transportation of liquefied gas | Liquefied gas carriers | Pt.5 Ch.5 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **Oil** | Ships intended for transport of oil in bulk | Oil carriers | Pt.5 Ch.3 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **Oil Products** | All types of oil products except crude oil | Oil product carriers | | |

## B 900 Class notations - mandatory survey scheme

**901** Table B5 give a mandatory class notation related to a survey scheme for bulk and ore carriers and tankers.

**Table B5 Mandatory survey scheme class notation**

| *Class notation* | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|
| **ESP** | Enhanced survey programme | Mandatory for ships with class notations: **Bulk Carrier**, **Bulk Carrier or Tanker for Oil**, **Ore Carrier**, **Ore Carrier or Tanker for Oil**, **Tanker for Chemicals**, **Tanker for C**, **Tanker for Oil** and **Tanker for Oil Products**. | | Pt.7 Ch.1 Sec.2, 3 and 4 |

## B 1000 Additional mandatory class notations - for main ship types

**1001** Ships arranged and/or strengthened for a special service and found to be in accordance with relevant requirements in Pt.5 or Pt.8 will be assigned corresponding additional class notations for main ship types.

Additional mandatory class notations applicable for main ship types are given in Table B6.

**Table B6 Additional mandatory class notations for main ship types**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **BC-** | **A** | Strengthened to carry dry bulk cargoes with cargoes of cargo density 1.0 t/m$^3$ and above with specified holds empty, at maximum draught. | Mandatory for ships with class notation **Bulk Carrier ESP** with L ≥ 150 m unless **BC-B** or **BC-C** is assigned. | Pt.5 Ch.2 Sec.5 | N/A |
| | **B** | Strengthened to carry dry bulk cargoes with cargoes of cargo density 1.0 t/m$^3$ and above with all cargo holds loaded. | Mandatory for ships with class notation **Bulk Carrier ESP** with L ≥ 150 m unless **BC-A** or **BC-C** is assigned. | | |
| | **C** | Strengthened to carry dry bulk cargoes with cargoes of cargo density less than 1.0 t/m$^3$ | Mandatory for ships with class notation **Bulk Carrier ESP** with L ≥ 150 m unless **BC-A** or **BC-B** is assigned. | | |
| **BOW LOADING** | | Bow loading arrangement | Mandatory for **Tanker for Oil** when installed | Pt.5 Ch.3 Sec.14 | Pt.7 Ch.1 Sec.2 A202, B105, B110, C204 |
| **CSR** | | Hull structure is based on IACS common structural rules for Double Hull Oil Tankers with length ≥ 150 m and Bulk Carriers with length ≥ 90 m | Tanker for Oil and Bulk Carrier | Pt.8 Ch.1 and Ch.2 | Pt.8 Ch.1 Sec.12 Pt.8 Ch.2 / Chapter 13 |
| **HC-** | **A** | Strengthened to carry dry bulk cargoes with cargoes of density 1.0 t/m$^3$ and above with specified holds empty, at maximum draught. | Mandatory for **Bulk Carrier** without **ESP**, unless either **HC-B**, **HC-B***, **HC-C** or **HC-M** is assigned | Pt.5 Ch.2 Sec.5 A | N/A |
| | **B** | Strengthened to carry dry bulk cargoes with cargoes of density 1.0 t/m$^3$ and above with all holds loaded. | Mandatory for **Bulk Carrier** without **ESP**, unless either **HC-A**, **HC-B***, **HC-C** or **HC-M** is assigned | | |
| | **B*** | Strengthened to carry dry bulk cargoes with cargoes of density 1.0 t/m$^3$ and above with any hold empty at maximum draught. | Mandatory for **Bulk Carrier** without **ESP**, unless either **HC-A**, **HC-B**, **HC-C**, or **HC-M** is assigned | | |
| | **C** | Strengthened to carry dry bulk cargoes with cargoes of density less than 1.0 t/m$^3$. | Mandatory for **Bulk Carrier** without **ESP**, unless either **HC-A**, **HC-B**, **HC-B***, or **HC-M** is assigned | | |
| | **M** | Designed to carry dry bulk cargoes, applicable for vessels not in compliance with **HC-A**, **HC-B**, **HC-B***, or **HC-C**. | Mandatory for **Bulk Carrier** without **ESP**, unless either **HC-A**, **HC-B**, **HC-B***, or **HC-C** is assigned | | |

| Table B6 Additional mandatory class notations for main ship types (Continued) | | | | | |
|---|---|---|---|---|---|
| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
| **Holds n may be empty** | | Holds may be empty at full draught where n is the identification number for each hold that may be empty | Mandatory for ships with class notation **BC-A** or **HC-A** | Pt.5 Ch.2 Sec.5 | N/A |
| **INERT** | | Systems for inerting of tanks and void spaces within the cargo area | Mandatory if installed on **Tanker for Oil** with DWT < 20 000 ton | Pt.5 Ch.3 Sec.11 | N/A |
| **Maximum Cargo Density** | **x.y t/m$^3$** | Designed for a maximum cargo density x.y in t/m$^3$ | Mandatory for **Bulk Carrier BC-A** or **BC-B** designed for a maximum cargo density less than 3.0 t/m$^3$ | Pt.5 Ch.2 Sec.5 | N/A |
| **No MP** | | Ships not designed for loading and unloading in multiple ports | Bulk Carrier | Pt.5 Ch.2 Sec.5 | N/A |
| **SPM** | | Single point mooring | Mandatory for **Tanker for Oil** when installed | Pt.5 Ch.3 Sec.15 | N/A |
| **STL** | | Submerged turret loading | Mandatory for **Tanker for Oil** when installed | Pt.5 Ch.3 Sec.14 | N/A |

## C. Optional Class Notations

### C 100 Class notations - optional ship types

**101** Ships arranged and/or strengthened for a special service, other than those given in B1000, and found to be in accordance with relevant rule requirements may in stead of the main ship class notation given in Table B3 and B4, be assigned a corresponding optional ship type class notation as given in Table C1.

| Table C1 Optional ship type class notations | | | | | |
|---|---|---|---|---|---|
| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
| **Barge** | | Barge or pontoons without sufficient means for self propulsion for their service area | | Pt.5 Ch.7 Sec.14 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Barge** | **for Deck Cargo** | Intended for deck load only | Barge or pontoons without sufficient means for self propulsion for their service area | Pt.5 Ch.7 Sec.14 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **for Liquefied Gas** | Intended for storage and carriage of liquefied gas | | | |
| | **for Oil** | Intended for storage and carriage of oil | | | |
| | **for "C"** | Intended for storage and carriage of chemical liquids, where "C" denotes the type of cargo for which the barge is classified | | | |
| **Pipe Laying Barge** | | Specially intended for laying pipelines on the sea bottom | Barge or pontoons without sufficient means for self propulsion for their service area | Pt.5 Ch.7 Sec.20 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Cable Laying Barge** | | Specially intended for laying cables on the sea bottom | | Pt.5 Ch.7 Sec.19 | Pt.7 Ch.1 Sec.2, 3 and 4<br>Pt.7 Ch.1 Sec.6 G |
| **Pipe Laying Vessel** | | Specially intended for laying pipelines on the sea bottom | | Pt.5 Ch.7 Sec.20 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Cable Laying Vessel** | | Specially intended for laying cables on the sea bottom | | Pt.5 Ch.7 Sec.19 | Pt.7 Ch.1 Sec.2, 3 and 4<br>Pt.7 Ch.1 Sec.6 G |
| **Car Carrier** | | Intended for carriage of cars | | Pt.5 Ch.2 Sec.7 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Crane Barge** | | Specially intended for lifting operations | Barge or pontoons without sufficient means for self propulsion for their service area | Pt.5 Ch.7 Sec.17 and Sec.14 | Pt.7 Ch.1 Sec.2, 3 and 4<br>Pt.7 Ch.1 Sec.6 F |

**Table C1 Optional ship type class notations (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **Crane Vessel** | | Specially intended for lifting operations | | Pt.5 Ch.7 Sec.17 | Pt.7 Ch.1 Sec.2, 3 and 4<br>Pt.7 Ch.1 Sec.6 F |
| **Dredger** | | Specially intended for dredging | | Pt.5 Ch.7 Sec.18 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Escort** | **(n,V)** | Especially intended for escort service where n is the steering force acting on the assisted ship in t for escort vessel speed V. If tested at both 8 and 10 knots the class notation will read **(n,8 n,10)** | | Pt.5 Ch.7 Sec.13 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Fishing Vessel** | | Arranged for fishing as main purpose | | Pt.5 Ch.6 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **General Cargo Carrier** | | Arranged for lift on/lift off cargo handling and intended for carriage of general dry cargoes | Mandatory when the ship is also designed for carriage of solid bulk cargoes | Pt.5 Ch.2 Sec.4 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Great Lakes Bulk Carrier** | | Bulk carrier designed to operate within the limits of the Great Lakes and St. Lawrence river to the seaward limits defined by the Anticosti Island. | Bulk Carriers | Pt.5 Ch.2 Sec.11 | |
| **Naval** | | Flying a naval flag and administered by a national naval administration. | | Pt.5 Ch.14 | Pt.7 Ch.1 Sec.7 A |
| | **[navdist]** | In case of deviations from the rules and given class notation and or service restriction. | Also applicable for the class notation **Naval Support** | Pt.5 Ch.14 Sec.1 E | N/A |
| **Naval Support (...;...;...;....)** | **hull** | Flying a naval flag and administered by a national naval administration with additional naval requirements to arrangement, loads and hull strength. | May be used in any combination with the other supplements | Pt.5 Ch.14 Sec.2, 3 and 4 | Pt.7 Ch.1 Sec.7 A |
| | **stab** | Flying a naval flag and administered by a national naval administration with naval requirements to stability. | May be used in any combination with the other supplements | Pt.5 Ch.14 Sec.5 | Pt.7 Ch.1 Sec.7 A |
| | **system** | Flying a naval flag and administered by a national naval administration with additional naval requirements to piping systems, electrical systems and control and monitoring systems. | May be used in any combination with the other supplements | Pt.5 Ch.14 Sec. 6, 7, 8 and 9 | Pt.7 Ch.1 Sec.7 A |
| | **fire** | Flying a naval flag and administered by a national naval administration with additional naval requirements to fir safety. | May be used in any combination with the other supplements | Pt.5 Ch.14 Sec.10 or 11 | Pt.7 Ch.1 Sec.7 A |
| | **evac** | Flying a naval flag and administered by a national naval administration with naval requirements to safe evacuation. | May be used in any combination with the other supplements | Pt.5 Ch.14 Sec.12 | Pt.7 Ch.1 Sec.7 A |
| | **radhaz** | Flying a naval flag and administered by a national naval administration with naval requirements to radiation hazards. | May be used in any combination with the other supplements | Pt.5 Ch.14 Sec.13 | Pt.7 Ch.1 Sec.7 A |
| | **emc** | Flying a naval flag and administered by a national naval administration with naval requirements to electromagnetic compatibility. | May be used in any combination with the other supplements | Pt.5 Ch.14 Sec.14 | Pt.7 Ch.1 Sec.7 A |
| | **sam** | Flying a naval flag and administered by a national naval administration with naval requirements to storage rooms for ammunition. | May be used in any combination with the other supplements | Pt.5 Ch.14 Sec.15 | Pt.7 Ch.1 Sec.7 A |

**Table C1 Optional ship type class notations (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **PC-** | **1** | Year-round operation in all Polar waters | Ships designed for ice breaking for the purpose of escort and ice management, and which are assigned a polar class notation **PC-1** – **PC-6**, may be given the additional notation **Icebreaker** | Pt.5 Ch.1 Sec.8 | N/A |
| | **2** | Year-round operation in moderate multi-year ice conditions | | | |
| | **3** | Year-round operation in second-year ice which may include multi-year ice inclusions | | | |
| | **4** | Year-round operation in thick first-year ice which may include old ice inclusions | | | |
| | **5** | Year-round operation in medium first-year ice which may include old ice inclusions | | | |
| | **6** | Summer/autumn operation in medium first-year ice which may include old ice inclusions | | | |
| | **7** | Summer/autumn operation in thin first-year ice which may include old ice inclusions | All ships | | |
| **Pusher** | | Specially intended for pushing | | Pt.5 Ch.7 Sec.15 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Pusher/Barge Unit** | | Specially intended for pushing | Barge or pontoons without sufficient means for self propulsion for their service area | Pt.5 Ch.7 Sec.16 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Reefer** | **(…°C/…°C sea)** | Built mainly for the carriage of refrigerated dry cargo. Lowest chamber temperature in °C and maximum sea water temperature in °C | Dry cargo ships | Pt.5 Ch.10 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Refrigerated Fruit Juice Carrier** | | Built for transport of fruit juices and similar cargoes in refrigerated tanks | | Pt.5 Ch.10 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **SafeLash** | | Intended to increase the level of safety for crew members and stevedores engaged in the handling and securing of containers. Market adaptation to future IMO ship design requirements | Container Carriers | Pt.5 Ch.2 Sec.6 | N/A |
| **Sealer** | | Designed for catching seals | | Pt.5 Ch.1 Sec.5 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Slop Reception and Processing facility** | | Serving as floating facilities for reception and processing of oily water and oil residue | | Pt.5 Ch.8 Sec.1 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **SPS** | | Ships carrying special personnel who are neither crew members nor passengers | | Pt.5 Ch.7 Sec.11 | Pt.7 Ch.1 Sec.7 |
| **Standby Vessel** | | Especially designed to carry out rescue and standby services to offshore installations | | Pt.5 Ch.7 Sec.6 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **(S)** | Designed specially to operate in harsh weather conditions, e.g. the North Sea. | | Pt.5 Ch.7 Sec.6 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Stern Trawler** | | Arranged for fishing as main purpose | | Pt.5 Ch.6 Sec.2 | Pt.7 Ch.1 Sec.2, 3 and 4 |

**Table C1 Optional ship type class notations (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **Offshore Service Vessel** | | Designed specially for services to offshore installations. | | Pt.5 Ch.7 Sec.2 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **+** | Designed specially for services to offshore installations in harsh weather conditions, e.g. the North Sea. | | Pt.5 Ch.7 Sec.2 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| | **Anchor Handling** | Designed specially for towing of floating objects in open waters and objects on sea bed in addition to subsurface deployment and lifting of anchoring equipment | | Pt.5 Ch.7 Sec.3 | Pt.7 Ch.1 Sec.7 I |
| | **Towing** | Designed specially for towing of floating objects in open waters | | Pt.5 Ch.7 Sec.3 | Pt.7 Ch.1 Sec.7 I |
| | **AHTS** | Designed specially for towing of floating objects in open waters and objects on sea bed, subsurface deployment and lifting of anchoring equipment and platform supply services. | Compliance with notation **Anchor Handling** and **Supply** qualifies for notation **AHTS** | Pt.5 Ch.7 Sec.3 and 4 | Pt.7 Ch.1 Sec.7 I |
| | **Supply** | Designed specially for supply services to offshore installations | | Pt.5 Ch.7 Sec.4 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Tanker for Asphalt** | | Apply to ships intended to carry Asphalt at a temperature higher than 80°C at atmospheric pressure. | | Pt.3 Ch.1 Sec.14 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Tanker for Potable Water** | | Intended for transport of potable water in bulk | | Pt.5 Ch.13 | Pt.7 Ch.1 Sec.4 B and C |
| **Tug** | | Specially intended for towing | | Pt.5 Ch.7 Sec.12 | Pt.7 Ch.1 Sec.2, 3, 4 and 7 J |
| **Wind Turbine Installation** | **Vessel** | Vessel purpose - wind turbine installation | | Pt.5 Ch.7 Sec.22 | Pt.7 Ch.1 Sec.2, 3, 4 and 6 F |
| | **Barge** | Barge purpose - wind turbine installation | | Pt.5 Ch.7 Sec.22 | Pt.7 Ch.1 Sec.2, 3, 4 and 6 F |
| **Windfarm Maintenance** | | Intended for maintenance and service of offshore wind farms | Offshore service vessels | Pt.5 Ch.7 Sec.23 | N/A |
| **Well Stimulation Barge** | | Arranged and equipped for stimulation of wells for production of oil and/or gas | Barge or pontoons without sufficient means for self propulsion for their service area | Pt.5 Ch.7 Sec.9 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **Well Stimulation Vessel** | | Arranged and equipped for stimulation of wells for production of oil and/or gas | | Pt.5 Ch.7 Sec.9 | Pt.7 Ch.1 Sec.2, 3 and 4<br>Pt.7 Ch.1 Sec.6 B |
| **X Carrier** | | **Bulk Carrier** specialised for the carriage of a single type of dry bulk cargo. **X** denotes the type of bulk cargo to be carried, e.g. **Alumina Carrier, Cement Carrier, Sugar Carrier** etc. | Bulk Carrier | Pt.5 Ch.2 Sec.9 | Pt.7 Ch.1 Sec.2, 3 and 4 |

## C 200 Optional class notations - general

**201** Optional class notations related to service area, cargo, loading flexibility, design features, survey scheme, equipment or system may be assigned to ships meeting corresponding rule requirements.

Optional class notations are given in Table C2 to Table C7.

## C 300 Optional class notations related to cargo

**301** Ships arranged, strengthened and/or equipped for carriage of specific cargoes (and/or cargoes with certain properties) in addition to main cargo type specified by the ship type notations, and found to be in accordance with relevant rule requirements may be assigned a corresponding optional class notation.

Optional class notations related to cargo are given in Table C2.

**Table C2 Optional class notations related to cargo**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **(S)** | | Arranged for carriage of fish in bulk, with shifting boards in cargo holds | **Fishing Vessel** and **Stern Trawler** | Pt.5 Ch.6 | N/A |
| **[...] TEU** | | Number of twenty-foot equivalent container units (TEU) that may be carried | Container carriers | Pt.5 Ch.2 Sec.6 | N/A |
| **CA** | | Permanently equipped for carriage of fruit needing controlled atmosphere in cargo chambers. | Ships with class notation **Reefer** | Pt.5 Ch.10 Sec.5 | Pt.7 Ch.1 Sec.6 D |
| **CA** | **(port.)** | Permanently equipped for carriage of fruit needing controlled atmosphere in cargo chambers with partly portable equipment | Ships with class notation **Reefer** | Pt.5 Ch.10 Sec.5 | Pt.7 Ch.1 Sec.6 D |
| **CONTAINER** | | Arranged for carriage of containers | All ships except **Container Carrier** (implicit) | Pt.5 Ch.2 Sec.6 | N/A |
| **COW** | | Fitted with crude oil washing system | Oil carriers less than 20 000 dwt | Pt.5 Ch.3 Sec.13 | Pt.7 Ch.1 Sec.3 B and Sec.4 B |
| **DG-** | **B** | Arranged for carriage of dangerous in solid bulk cargoes | | Pt.5 Ch.11 | Pt.7 Ch.1 Sec.6 E |
| | **P** | Arranged for carriage of dangerous goods in packaged form | | Pt.5 Ch.11 | Pt.7 Ch.1 Sec.6 E |
| **EC** | | Ships built for easy cleaning of cargo holds | Cargo ships | Pt.5 Ch.2 Sec.5 | Pt.7 Ch.1 Sec.7 D |
| **EL-2** | | Ships built for easy loading of cargo holds, loading each cargo hold in one step | Special feature notation intended for **Ore Carriers** | Pt.5 Ch.2 Sec.5 | Pt.7 Ch.1 Sec.7 D |
| **HOT** | **(…°C cargo tank no …)** | Structures designed for carriage of liquid cargoes at temperatures higher than 80°C. Maximum cargo temperature in °C, applicable for cargo tank no n | Tankers | Pt.3 Ch.1 Sec.14 | N/A |
| **LFL** | | Designed for carriage of liquid with flashpoint lower than 60°C | All ships except **Tanker for Oil** and **Tanker for Chemicals** | Pt.5 Ch.7 Sec.8 | Pt.7 Ch.1 Sec.2 A and C, Sec.4 B and C |
| | * | Flashpoint lower than 43°C | | | |
| **NLS** | | Complying with MARPOL Annex II requirements for NLS certificate (Noxious Liquid Substances) | Oil carriers | Pt.5 Ch.3 Sec.1 | N/A |
| **PET** | | Arranged for carriage of vehicles with fuel in their tanks | Mandatory for ships arranged for lift on/off cargo handling | SOLAS Ch.II-2/ Reg.20 Pt.5 Ch.2 Sec.4 | Pt.7 Ch.1 Sec.2 A and C |
| **REGAS** | | For vessels with regasification plants | Liquefied natural gas carriers | Pt.5 Ch.5 Sec.1 | N/A |
| **RM** | **(…°C/…°C sea)** | Equipped with a refrigeration plant where the lowest chamber temperature is given in °C and maximum sea water temperature in °C | Dry cargo ships | Pt.5 Ch.10 | Pt.7 Ch.1 Sec.2 B and C |
| **RM CONTAINER** | | Equipped for carriage of refrigerated containers, where cooling is supplied from ships refrigeration plant | Dry cargo ships | Pt.5 Ch.10 | Pt.7 Ch.1 Sec.2 B and C |

## C 400 Optional class notations related to service area

**401** Ships designed or strengthened for operation within particular geographical or environmental areas found to be in accordance with relevant rule requirements may be assigned a corresponding optional class notation.

Optional class notations related to service area are given in Table C3.

**Table C3 Optional class notations related to service area**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **ICE-** | **E** | Ships with ice strengthening for light localised drift ice in mouths of rivers and coastal areas. | All ships | Pt.5 Ch.1 Sec.3 | N/A |
| | **C** | Ships with basic ice strengthening | All ships | | |
| | **1C** | Ships constructed according to Baltic ice rules. Ice thickness 0.4 m | All ships | | |
| | **1B** | Ships constructed according to Baltic ice rules. Ice thickness 0.6 m | All ships | | |
| | **1A** | Ships constructed according to Baltic ice rules. Ice thickness 0.8 m | All ships | | |
| | **1A*** | Ships constructed according to Baltic ice rules. Ice thickness 1.0 m | All ships | | |
| | **1A*F** | Ships constructed according to Baltic ice rules. High powered ships for regular traffic in heavy Baltic ice. | All ships | | |
| | **05** | Ships constructed according to arctic ice rules. Ice thickness 0.5 m, no ramming anticipated | All ships | Pt.5 Ch.1 Sec.4 | N/A |
| | **10** | Ships constructed according to arctic ice rules. Ice thickness 1.0 m, no ramming anticipated | | | |
| | **15** | Ships constructed according to arctic ice rules. Ice thickness 1.5 m, no ramming anticipated | | | |
| | **(for max draught x.x m)** | Designed for a maximum draught x.x metres in ice | For class notation **ICE-** when maximum draught in ice is less than summer load line in fresh water | Pt.5 Ch.1 Sec.1 | N/A |
| **Icebreaker** | | Designed for icebreaking as main purpose | | Pt.5 Ch.1 Sec.4 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **POLAR-** | **10** | Ships constructed according to arctic ice rules with ice thickness 1.0 m, accidental ramming | All ships | Pt.5 Ch.1 Sec.4 | N/A |
| | **20** | Ships constructed according to arctic ice rules with ice thickness 2.0 m, accidental ramming | | | |
| | **30** | Ships constructed according to arctic ice rules with ice thickness 3.0 m, accidental ramming | | | |
| **WINTERIZED BASIC** | | Ships operating in cold climate environments for shorter periods, not necessarily including ice covered waters | All ships | Pt.5 Ch.1 Sec.6 | Pt.7 Ch.1 Sec.6 X |
| **WINTERIZED COLD** | **($t_1$, $t_2$)** | Ships operating in cold climate environments for longer periods, where $t_1$ = material design temp. in °C, $t_2$ = extreme design temp. in °C | All ships | Pt.5 Ch.1 Sec.6 | Pt.7 Ch.1 Sec.6 X |

| Table C3 Optional class notations related to service area (Continued) | | | | | |
|---|---|---|---|---|---|
| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
| **WINTERIZED ARCTIC** | **($t_1$, $t_2$)** | Ships operating in cold climate environments for longer periods, where $\mathbf{t_1}$ = material design temp. in °C, $\mathbf{t_2}$ = extreme design temp. in °C. Additional requirements for ice strengthening, propulsion, oil pollution prevention, helicopter landing facilities and ice surveillance radar. | All ships | Pt.5 Ch.1 Sec.6 | Pt.7 Ch.1 Sec.6 X |

## C 500 Optional class notations related to survey and management schemes

**501** Ships arranged or equipped for alternative means of Survey during operation found to be in accordance with relevant rule requirements may be assigned a corresponding optional class notation.

Optional class notations related to survey and management schemes are given in Table C4.

| Table C4 Optional class notations related to survey and management schemes | | | | |
|---|---|---|---|---|
| *Class notation* | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
| **BIS** | Ships built for in-water survey of the ship's bottom and related items | All ships | Pt.3 Ch.1 Sec.1 D | N/A |
| **ESP** | Ships subject to an enhanced survey programme | Bulk and oil carriers | N/A | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **SBM** | Management of safety and environment protection in ship operation | All ships | N/A | Pt.7 Ch.3 Sec.1 |
| **TMON** | Tailshaft condition monitoring arrangement | All ships | Pt.4 Ch.4 Sec.1 E | Pt.7 Ch.1 Sec.6 Q |

## C 600 Optional class notations related to equipment and systems

**601** Ships having special equipment or systems found to satisfy relevant rule requirements in Pt.5 and Pt.6 may be assigned a corresponding optional class notation.

Optional class notations related to equipment and systems are given in Table C5.

| Table C5 Optional class notations related to equipment and systems | | | | | |
|---|---|---|---|---|---|
| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
| **BWM-** | **E(...)** | Ballast water management system complying with the Ballast Water Convention (BWM/CONF/36). Ballast water exchange method. **(...)** denotes exchange of ballast method, **s**, **f** or **d**. | All ships | Pt.6 Ch.18 Sec.3 | Pt.7 Ch.1 Sec.6 V |
| | **EP(...)** | Ballast water management system complying with the Ballast Water Convention (BWM/CONF/36). Ballast water enhanced exchange-performance. Ballast water exchange method. **(...)** denotes exchange of ballast method, **s**, **f** or **d**. | All ships | | |
| | **s** | Exchange by sequential method. | All ships with class notation **BWM-E** and **BMW-EP** | | |
| | **f** | Exchange by flow through method. | | | |
| | **d** | Exchange by dilution method. | | | |
| | **T** | Ballast water management system complying with the Ballast Water Convention (BWM/CONF/36). Ballast water treatment method. | All ships | Pt.6 Ch.18 Sec.4 | Pt.7 Ch.1 Sec.6 V |
| **CCO** | | Centralised operation of cargo and ballast handling systems | All ships | Pt.6 Ch.6 | Pt.7 Ch.1 Sec.4 C204 |

**Table C5 Optional class notations related to equipment and systems (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **CLEAN** | | Requirements for controlling and limiting operational emissions and discharges | All ships | Pt.6 Ch.12 Sec.1, 2 and 3 | Pt.7 Ch.1 Sec.6 P |
| | **-DESIGN** | Specifies additional design requirements for protection against accidents and for limiting their consequences | All ships | Pt.6 Ch.12 Sec.1, 2 and 3 | Pt.7 Ch.1 Sec.6 P |
| **CRANE** | | Certification of crane | All ships except for **Crane Vessel** (implicit) | Pt.6 Ch.1 Sec.3 | Pt.7 Ch.1 Sec.6 F |
| **DEICE** | | De-icing or anti-icing systems | All ships | Pt.6 Ch.1 Sec.4 | Pt.7 Ch.1 Sec.6 J |
| | **-C** | Including cargo deck area | All ships | Pt.6 Ch.1 Sec.4 | Pt.7 Ch.1 Sec.6 J |
| **Diving system-** | **SAT** | Diving systems designed to support diving operations with no operating restrictions | | Pt.5 Ch.16 Sec.9 | Pt.7 Ch.1 Sec.6 I |
| | **SURFACE** | Diving systems designed to support diving operations with operating restrictions to maximum depth of 60 m and operating time 8 hr | | | |
| **DSV-** | **SAT** | Vessels arranged to support diving operations with no operating restrictions | | Pt.5 Ch.16 DNV-OSS-305 DNV-OS-E402 | Pt.7 Ch.1 Sec.6 I |
| | **SURFACE** | Vessels arranged to support diving operations with operating restrictions to maximum depth of 60 m and operating time 8 hr | | | |
| **DPS** | **0** | Dynamic positioning system without redundancy. | All ships | Pt.6 Ch.7 | Pt.7 Ch.1 Sec.6 L |
| | **1** | Dynamic positioning system with an independent joystick system back-up and a position reference back-up. | | | |
| | **2** | Dynamic positioning system with redundancy in technical design and with an independent joystick system back-up. | | | |
| | **3** | Dynamic positioning system with redundancy in technical design and with an independent joystick system back-up, plus a back-up dynamic positioning control system. | | | |
| | | **(A)** Annual survey to be carried out according to scope for complete survey. | All vessels with class notation **DPS 2** and **DPS 3** | | |

**Table C5 Optional class notations related to equipment and systems (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **DYNPOS-** | **AUT** | Dynamic positioning system with an independent joystick system back-up and a position reference back-up. Additional requirements to achieve higher availability and robustness as compared to **DPS 1** will apply. | All ships | Pt.6 Ch.7 | Pt.7 Ch.1 Sec.6 L |
| | **AUTR** | Dynamic positioning system with redundancy in technical design and with an independent joystick system back-up. Additional requirements to achieve higher availability and robustness as compared to **DPS 2** will apply. | | | |
| | **AUTRO** | Dynamic positioning system with redundancy in technical design and with an independent joystick system back-up. Plus a back-up dynamic positioning control system in an emergency dynamic positioning control centre, designed with physical separation for components that provide redundancy. Additional requirements to achieve higher availability and robustness as compared to **DPS 3** will apply. | | | |
| | **AUTS** | Dynamic positioning system without redundancy. Additional requirements to achieve higher availability and robustness as compared to **DPS 0** will apply. | | | |
| | | **(A)** Annual survey to be carried out according to scope for complete survey. | All vessels with class notation **DYNPOS-AUTR** and **DYNPOS-AUTRO** | | |
| | | Environmental regularity number, **ern(a,b,c)**; indicates probable regularity for keeping position | All vessels with class notation **DYNPOS-** | Pt.6 Ch.7 Sec.7 | Pt.7 Ch.1 Sec.6 L |
| | **ER** | Dynamic Positioning System with the following properties:<br>— Redundancy in technical design<br>— A60 separation in high fire risk area<br>— A0 separation in other areas<br>— Watertight separation below damage waterline<br>— Redundant main DP-control system<br>— Independent single alternative DP-control system<br>— Operator stations for main and alternative DP-control systems placed in the same space (e.g. the bridge)<br>— Flexibility and increased availability of power and thrust by use of connected power systems, standby start and change-over | All ships | Pt.6 Ch.26 | Pt.7 Ch.1 Sec.7 K |
| **E0** | | Instrumentation and automation installed to allow for unattended machinery space | All ships | Pt.6 Ch.3 | Pt.7 Ch.1 Sec.6 Y, Sec.2 C107, Sec.4 C110 |
| **ECO** | | Instrumentation and automation installed to allow for centralised operated machinery | All ships | Pt.6 Ch.3 | Pt.7 Ch.1 Sec.6 Y, Sec.2 C107, Sec.4 C110 |

**Table C5 Optional class notations related to equipment and systems (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **AP-** | **1(a%)(+)** | Main and emergency propulsion is provided by a common propulsion system (one propeller) with propulsion machinery redundancy, e.g.:<br>— two prime movers with clutch, where one of the prime movers may be of power take in type, connected to a common gear, one shaft line and one rudder<br>— double wound electrical motor (armature and excitation), and partly separate auxiliary systems for each prime mover or winding, where two prime movers or two windings in operation constitute the main propulsion system and one in operation constitute the emergency propulsion system. | All ships | Pt.6 Ch.19 | Pt.7 Ch.1 Sec.6 W |
| | **2(a%)(+)** | Main and emergency propulsion is provided by separate systems (two propellers), e.g.:<br>— one prime mover, one shaft line and one rudder providing the main propulsion system and one separate azimuth or pod-thruster providing the emergency propulsion system, and redundant auxiliary systems for each of the propulsion systems. | | | |
| | **3(a%)(+)** | Main and emergency propulsion is provided by separate systems as for **AP-2(a%)(+)**, in addition the prime mover and thruster and their auxiliaries are separated by watertight A-60 bulkheads (two propellers separated). | | | |
| | | **(a%)** the ratio between emergency propulsion power and main propulsion power in %. | All ships with class notation **AP** | Pt.6 Ch.19 | Pt.7 Ch.1 Sec.6 W |
| | | **(+)** proven position holding capacity. | All ships with class notation **AP** | Pt.6 Ch.19 | Pt.7 Ch.1 Sec.6 W |
| **ESV-** | **DP[...]** | Vessels having undergone enhanced verification of dynamic positioning (DP) systems (Pt.6 Ch.7) | All ships | Pt.6 Ch.22 | N/A |
| | **TAM[...]** | Vessels having undergone enhanced verification of thruster assisted mooring or automatic thruster assisted mooring (TAM) systems (DNV-OS-E301) | | | |
| | | **[....]** contain the verification method signifying the method of verification<br>**HIL** "Hardware-In-the-Loop" testing | | | |
| **F-** | **A** | In the accommodation spaces. Can be assigned in combination with **C** and **M** | All ships | Pt.6 Ch.4 | Pt.7 Ch.1 Sec.6 K |
| | **C** | In the cargo area. Can be assigned in combination with **A** and **M** | | | |
| | **M** | In the machinery spaces. Can be assigned in combination with **A** and **C** | | | |

| **Table C5 Optional class notations related to equipment and systems (Continued)** | | | | | |
|---|---|---|---|---|---|
| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
| **Fire Fighter** | **Capability** | Vessels with special fire fighting capabilities | Vessels not fully in compliance with Pt.5 Ch.6 Sec.5 or not specifically built for the services intended to be covered by this section but which have special fire fighting capabilities in addition to their regular service. | Pt.5 Ch.7 Sec.7 | Pt.7 Ch.1 Sec.2, 3 and 4<br>Pt.7 Ch.1 Sec.6 A |
| | **I** | Active protection, giving it the capability to withstand higher heat radiation loads from external fires. | All ships intended for fighting fires on board ships and on offshore and onshore structures | | |
| | **I+** | Active and passive protection, giving it the capability to withstand the higher heat radiation loads also when the active protection fails. In addition, the vessel incorporates a longer throw length. | | | |
| | **II** | Continuous fighting of large fires and cooling of structures. Can be assigned in combination with **Fire Fighter I** | | | |
| | **III** | Continues fighting of large fires and cooling of structures with larger water pumping capacity and more comprehensive fire fighting equipment than for **II**. Can be assigned in combination with **Fire Fighter I** | | | |
| **FIRENAV** | | Additional fire protection | Naval ships | Pt.5 Ch.14 Sec.11 I | N/A |
| **FUEL** | **(…cSt, …kg/m$^3$, …°C)** | Fuel treatment and conditioning system, where the fuel oil maximum kinematic viscosity at 50°C in is given in cSt and the fuel oil maximum density at 15°C is given in kg/m$^3$ and the minimum outside air temperature is given in °C | All ships | Pt.6 Ch.14 | Pt.7 Ch.1 Sec.6 R |
| **FC-POWER** | | Notation for ships with fuel cell installations, mandatory where the fuel cell power is used for essential, important or emergency services | All ships | Pt.6 Ch.23 | Pt.7 Ch.1 Sec.2, 3 and 4 |
| **FC-SAFETY** | | Notation for fuel cell installations where the fuel cell power is not used for essential, important or emergency users. This notation is mandatory if the fuel used is a gas or a liquid fuel with flash point below 60°C | All ships | Pt.6 Ch.23 | Pt.7 Ch.1 Sec.2 and 3 |
| **GAS FUELLED** | | Gas engine installations | Mandatory when installed, except for steam driven **LNG Carrier** | Pt.6 Ch.13 | Pt.7 Ch.1 Sec.2, 3 and 4 |

**Table C5 Optional class notations related to equipment and systems (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **HELDK** | | Helicopter landing area or erected platform covering basic strength requirements | All ships | Pt.6 Ch.1 Sec.2 | Pt.7 Ch.1 Sec.6 H |
| | **-S** | Additional requirements to ship safety. Can be assigned in combination with **H** and **F** | All ships | Pt.6 Ch.1 Sec.2 | Pt.7 Ch.1 Sec.6 H |
| | **-H** | Additional requirements to helicopter safety Can be assigned in combination with **S** and **F** | | | |
| | **-F** | Additional requirements to helicopter facilities Can be assigned in combination with **S** and **H** | | | |
| | **-SH (CAA-N) -SHF (CAA-N)** | **(CAA-N)** means that the helicopter facility has been evaluated for additional requirements specified by the Norwegian Civil Aviation Authorities, in "CAA-N BSL D 5-1, Regulation 26 October 2007, no. 1181" governing commercial air traffic to and from helicopter decks on vessels and offshore installations operating on the Norwegian Continental Shelf. | | | |
| **HMON-** | **(...)** | Instrumentation system for monitoring of hull behaviour where (...) denotes additional supplements denote amount and type of monitoring equipment: **A, C, D, E, G, H, L, M, N, O, P, S, T, W** | All ships | Pt.6 Ch.11 | Pt.7 Ch.1 Sec.6 N |
| **LCS-** | **DC** | Loading computer systems for damage control, apply to integrated systems developed to assist the master as a decision aid under damage conditions | All ships | Pt.6 Ch.9 | Pt.7 Ch.1 Sec.6 S |
| **MCDK** | | Vessels arranged with movable car decks | All ships | Pt.5 Ch.2 Sec.7 | Pt.7 Ch.1 Sec.4 B121 |

**Table C5 Optional class notations related to equipment and systems (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **NAUT-** | **AW** | Requirements to bridge design, instrumentation, location of equipment and bridge procedures with extended requirements to bridge design and instrumentation as well as automatic grounding avoidance system and information on the manoeuvring characteristics of the ship | All ships | Pt.6 Ch.8 | Pt.7 Ch.1 Sec.6 M |
| | **OC** | Requirements to bridge design, instrumentation, location of equipment and bridge procedures with basic requirements. | | | |
| | **Q** | Requirements to bridge design, instrumentation, location of equipment and bridge procedures with requirements to navigator qualifications | | | |
| | **NAVY** | Requirements to bridge design, instrumentation, location of equipment and bridge procedures with requirements and guidelines on safety of navigation to demonstrate compliance with SOLAS Ch. V and the HSC Code Ch. 13 and Ch. 15 as amended | Naval ships | Pt.6 Ch.17 | Pt.7 Ch.1 Sec.7 A |
| | **OSV(A)** | Denotes that the bridge has been designed in accordance with established functional requirements and principles of ergonomics for reduced workload and improved operational conditions in All Waters (A), including areas with harsh operational and environmental conditions such as the North Sea. Furthermore, that the bridge arrangement provides the information and equipment required for safe performance of the functions to be carried out at dedicated workstations. | All ships | Pt.6 Ch.20 | Pt.7 Ch.1 Sec.6 M |
| | **OSV(T)** | Denotes that the bridge has been designed in accordance with established functional requirements and principles of ergonomics for reduced workload and improved operational conditions. Furthermore, that the bridge arrangement provides the information and equipment required for safe performance of the functions to be carried out at dedicated workstations.<br>The extent of the class notation addresses normal operation in areas other than the North Sea, and waters with similar harsh conditions. In the class notation the abbreviation (T) stands for “Tropic”. | | | |
| **NAV-** | **O** | Requirements to bridge design, instrumentation, location of equipment and bridge procedures with bridge design and bridge control console. This notation applies to ships constructed to the class of a recognized classification society before 1st July 2000 with an equivalent notation, and later transferred to the society | All ships | Pt.6 Ch.16 | Pt.7 Ch.1 Sec.6 M |

**Table C5 Optional class notations related to equipment and systems (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **DPS-** | **0** | Dynamic position system without redundancy | All ships | Pt.6 Ch.7 | Pt.7 Ch.1 Sec.6 L |
| | **1** | Dynamic positioning system with an independent joystick system back-up and a position reference back-up. | | | |
| | **2** | Dynamic positioning system with redundancy in technical design and with an independent joystick system back-up. | | | |
| | **3** | Dynamic positioning system with redundancy in technical design and with an independent joystick system back-up, plus a back-up dynamic positioning control system. | | | |
| | | **(A)** Annual survey to be carried out according to scope for complete survey. | All vessels with class notation **DPS-2** and **DPS-3** | | |
| **POSMOOR** | | Position mooring systems | Support vessel | DNV-OS-E301 | Pt.7 Ch.1 Sec.6 X200 |
| | **-ATA** | Position mooring systems with thruster assisted mooring system dependent on automatic remote thrust control system. | Support vessel | DNV-OS-E301 | Pt.7 Ch.1 Sec.6 X200 |
| | **-TA** | Position mooring systems with thruster assisted mooring system dependent on manual remote thrust control system | | | |
| | **-V** | Position mooring systems with mooring system which is designed for positioning of a vessel in vicinity of other structures | | | |
| **RC-** | **1 (X/Y)** | Ships equipped for carriage of refrigerated containers, with self contained refrigeration systems requiring electrical power supply; 80-100% chilled cargo | Dry cargo ships | Pt.5 Ch.2 Sec.10 | Pt.7 Ch.1 Sec.6 T |
| | **2 (X/Y)** | Ships equipped for carriage of refrigerated containers, with self contained refrigeration systems requiring electrical power supply; 50-80% chilled cargo | | | |
| | **3 (X/Y)** | Ships equipped for carriage of refrigerated containers, with self contained refrigeration systems requiring electrical power supply; less than 50% chilled cargo | | | |
| | | **(X)** number of forty-foot equivalent refrigerated units that may be carried on deck. | Dry cargo ships with class notation **RC-** | Pt.5 Ch.2 Sec.10 | Pt.7 Ch.1 Sec.6 T |
| | | **(Y)** number of forty-foot equivalent refrigerated units that may be carried in holds. | | | |
| **RP** | | Redundant propulsion systems applicable to vessels where the propulsion system is of a redundant design such that at least 50% of the propulsion power can be restored after any single failure in the propulsion system, before the vessel has lost steering speed. | All ships | Pt.6 Ch.2 | N/A |
| **RPS** | | Redundant propulsion that in addition to **RP** cover failures, which are caused by fire and flooding incidents, before the vessel has lost steering speed. | All ships | Pt.6 Ch.2 | N/A |

**Table C5 Optional class notations related to equipment and systems (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **VCS-** | **1** | Systems for control of vapour emission from cargo tanks and in compliance with IMO MSC/Circ. 585 | Tanker for Oil, Tanker for Oil Products, Tanker for Chemicals | Pt.6 Ch.10 | Pt.7 Ch.1 Sec.6 O |
| | **2** | Systems for control of vapour emission from cargo tanks and in compliance with IMO MSC/Circ. 585 and USCG CFR 46 Part 39 | | | |
| | **3** | Systems for control of vapour emission from cargo tanks and with a minimum recovery rate 65% | | | |
| | **B** | Additional requirements to vapour balancing | Ships with class notation **VCS-1**, **VCS-2** or **VCS-3** | Pt.6 Ch.10 | Pt.7 Ch.1 Sec.6 O |
| **VIBR** | | Ship meet specified vibration level criteria measured at pre-defined positions for machinery, components, equipment and structure | All ships | Pt.6 Ch.15 | Pt.7 Ch.1 Sec.6 U |
| **Recyclable** | | Inventory of Hazardous Materials Part 1, which addresses prohibited and restricted materials used, and quantifies and locates hazardous materials onboard ships which are known to represent a potential hazard to people and the environment. | All ships | Pt.6 Ch.27 | Pt.7 Ch.1 Sec.7 J |

## C 700 Optional class notations related to design features

**701** Optional class notations, related to design features, provide information regarding special design assumptions, arrangements or equipment which are not covered by main class or other optional class notations.

Optional class notations related to design features are given in Table C6.

**Table C6 Optional class notations related to design features**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **(N)** | | Ship also complying with the requirements of the Norwegian Maritime Directorate (NMD) or the Norwegian Petroleum Directorate (NPD) | **Fishing Vessel** (NMD), **Stern Trawler** (NMD), **Drilling Vessel** (NPD) **CRANE** (NPD) | Pt.5 Ch.6 Sec.7 Pt.5 Ch.7 Sec.20 Pt.6 Ch.1 Sec.6 | N/A |
| **(navdist)** | | In case of deviations from requirements given in Pt.5 Ch.14, the class notation on the certificate shall have the following letters assigned in brackets: **(navdist)** - meaning naval distinction. | **Naval Vessels**, **Naval Support Vessels** | Pt.5 Ch.14 | NA |
| **COAT-** | **1** | Additional requirements for corrosion prevention of tanks and holds for newbuildings and with coating system specification 1 | All ships | Pt.3 Ch.1 Sec.15 | N/A |
| | **2** | Additional requirements for corrosion prevention of tanks and holds for newbuildings and with coating system specification 2 | | | |
| | **PSPC(X)** | Additional requirements for corrosion prevention of tanks and spaces/areas for newbuildings. The notation provides compliance with SOLAS Ch.II-1 Pt.A-1, Reg. 3-2 and IMO Res. MSC.215(82)<br>The '**X**' in the parentheses will denote corrosion prevention of different tanks and spaces/areas, as follows:<br>**(B)** - IMO PSPC requirements for dedicated seawater ballast tanks of all types of vessels<br>**(D)** - IMO PSPC requirements for double side-skin spaces of bulk carriers<br>**(V)** - IMO PSPC requirements for void spaces of bulk carriers and oil tankers | All ships | Pt.3 Ch.1 Sec.15 | N/A |
| **COMF-** | **C(crn)** | Comfort class covering requirements for indoor climate. | All ships, can be used in combination with **V(crn)** | Pt.5 Ch.12 | N/A |
| | **V(crn)** | Comfort class covering requirements for noise and vibration. | All ships, can be used in combination with **C(crn)** | | |
| | **crn** | Comfort rating number. Values 1, 2 and 3 denote the level of comfort, where 1 is the highest level. | All ships with class notation **COMF-** | | |

**Table C6 Optional class notations related to design features (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **CSA-** | **1** | Fatigue strength control in accordance with **CSA-FLS1** and ultimate strength check based on direct load Calculations. | All ships | Pt.3 Ch.1 Sec.15 | N/A |
| | **2** | Fatigue strength control in accordance with **CSA-FLS2** and ultimate strength check based on direct load Calculations. | | | |
| | **FLS1** | Fatigue strength control based on direct load calculations. | | | |
| | **FLS2** | Additional fatigue strength control based on direct load calculations with increased scope compared to **CSA-FLS1** | | | |
| **DAT** | **(-X°C)** | Design ambient air temperature for structural material properties where (-X°C) designates the lowest design ambient temperature in °C | All ships | Pt.5 Ch.1 Sec.7 | N/A |
| **DK(+)** | | Decks strengthened for heavy cargo | Dry cargo ships | Pt.3 Ch.1 Sec.4 C | N/A |
| **ECA** | **(SOx-A)** | Ships designed to operate all machinery components e.g. main propulsion plant, power generation plant, steam/thermal oil plant, incinerator etc. on marine distillate fuel | All ships | Pt.6 Ch.25 | N/A |
| | **(SOx-P)** | Ships designed to operate machinery components used in port e.g. power generation plant, steam/thermal oil plant, incinerator etc. on marine distillate fuel | | | |
| **ETC** | | Arranged for effective tank cleaning | **Tanker for Oil**, **Tanker for Oil Products**, **Tanker for Chemicals** | Pt.5 Ch.3 Sec.1 | N/A |
| **GRAB** | **[X]** | Inner bottom strengthened for grab loading and discharging with grab mass equal to or greater than 20 t where X gives the grab mass in t. | Bulk Carriers | Pt.8 Ch.2 / Chapter 1 Sec.1 [3.2] | N/A |
| **HA** | **(+)** | Hatches strengthened for heavy cargo | Dry cargo ships | Pt.3 Ch.1 Sec.4 C | N/A |
| **HL(...) (cargo tank no…)** | | Tanks or holds strengthened for heavy liquid where (...) gives maximum cargo density in $t/m^3$ and (cargo tank no...) indicates cargo tank or hold no.. | **Tanker for Oil**, **Tanker for Oil Products**, **Tanker for Chemicals**, **Offshore Service Vessel** | Pt.3 Ch.1 Sec.4 C | N/A |
| **IB** | **-X** | Inner bottom strengthened for grab loading and discharging where **X** denotes which areas (area **1**, **2**, or **3**) are to be strengthened | Bulk Carrier, replaced **IB(+)** in July 2007 | Pt.3 Ch.1 Sec.6 H | N/A |
| | **(+)** | Inner bottom strengthened for grab loading and discharging | Bulk Carrier | Pt.3 Ch.1 Sec.6 H | N/A |

**Table C6 Optional class notations related to design features (Continued)**

| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
|---|---|---|---|---|---|
| **ICM** | **(BT)** | Increased corrosion margin in ballast tanks | All ships | Pt.3 Ch.1 Sec.2 D | N/A |
| | **(BTs)** | Increased corrosion margin in ballast tanks, strength deck of the ship and 1.5 m below | | | |
| | **(BTu)** | Ballast tanks, upper part of the ship (above D/2) | | | |
| | **(CH)** | Increased corrosion margin in cargo holds | | | |
| | **(CHs)** | Increased corrosion margin in cargo holds, strength deck of the ship and 1.5 m below | | | |
| | **(CHu)** | Increased corrosion margin in cargo holds, upper part of the ship (above D/2) | | | |
| | **(CT)** | Increased corrosion margin in cargo oil tanks | | | |
| | **(CTs)** | Increased corrosion margin in cargo oil tanks, strength deck of the ship and 1.5 m below | | | |
| | **(CTu)** | Increased corrosion margin in cargo oil tanks, upper part of the ship (above D/2) | | | |
| **OILREC** | | Recovered oil reception and transportation after a spill of oil in emergency situations. | All ships except Tanker for Oil (implicit) | Pt.5 Ch.7 Sec.10 | Pt.7 Ch.1 Sec.6 C |
| **OPP-** | **F** | Additional oil pollution prevention measures for the fuel oil system | All ships | Pt.6 Ch.1 Sec.5 | Pt.7 Ch.1 Sec.4 |
| **PLUS** | | Additional requirements for the fatigue life of hull structural details | All ships | Pt.3 Ch.1 Sec.15 | N/A |
| **PWDK** | | Decks strengthened for wheel loading | Dry cargo ships | Pt.5 Ch.2 Sec.4 | N/A |
| **RO/RO** | | Arranged for roll-on roll-off cargo handling | General cargo carrier | Pt.5 Ch.2 Sec.4 | N/A |
| **SF** | | Compliance to damage stability requirements | Offshore Service Vessels | Pt.5 Ch.7 Sec.5 | N/A |
| **SILENT-** | **A** | Vessels complying with specified maximum underwater noise emission | Vessels using acoustical equipment | Pt.6 Ch. 24 | Pt.7 Ch.1 Sec.7 H |
| | **S** | | Vessels conducting seismic surveys | | |
| | **F** | | Fishing vessels | | |
| | **R** | | Research vessels | | |
| | **E** | | Vessels demonstrating a controlled environmental noise emission | | |

## C 800 The NAUTICUS notation

**801** **NAUTICUS** is a notation describing a standard for information and information availability based on access to the Society's product model software technology.

**802** The **NAUTICUS** notation will be assigned in combination with additional notations describing specific features relating to specific documentation standards. Applicable notations are given in Table C7 and described in separate sections under Pt.3 and Pt.7.

**803** Ships assigned the **NAUTICUS** notation with additional notations will be given the notation **NAUTICUS (notation 1, notation 2**, etc.).

**804** New ships may be ordered with the **NAUTICUS (Newbuilding)** notation, see Pt.3 Ch.1. Upon delivery from the yard, the **NAUTICUS (Newbuilding)** notation is retained and relevant parts of the newbuilding product model are transferred to a ships in operation product model.

| Table C7 class notations **Nauticus** | | | | | |
|---|---|---|---|---|---|
| *Class notation* | | *Description* | *Application* | *Design requirements, rule reference* | *Survey requirements, rule reference* |
| **NAUTICUS** | **(Newbuilding)** | Standard for information and information availability based on access to the Society's product model software technology. Describes an extended calculation procedure for the verification of hull structures | Mandatory for **Tanker for Oil** with L > 190 m, **Bulk Carrier HC-B** or **HC-C** with L > 190 m, **Bulk Carrier HC-B*** or **HC-A** with L > 170 m, **Ore Carrier ESP** with L > 190 m and **Container Carrier** with L > 190 m | Pt.3 Ch.1 Sec.15 | N/A |
| | **(Operation)** | Standard for information and information availability based on access to the Society's product model software technology. Enhanced exchange of information between the owner and the Society in the operational phase | All ships | N/A | Pt.7 Ch.1 Sec.7 C |

# SECTION 2
# HISTORICAL CLASS NOTATIONS

## A. Class Notations no longer used for newbuildings

### A 100 General

**101** A number of ships will retain previous class notations that will not be covered under the current rules; these class notations shall remain extant under the rules in force at the time the class notations were originally assigned. Survey requirements are those of the latest rules covering the notation. Table A1 gives reference to the last issue of the rules containing the requirements for such notations.

**Table A1 Class Notations no longer used for newbuildings**

| *Class notation* | *Description* | *Application* | *Remark* | *Date entered into the rules* | *Date of last issue* |
|---|---|---|---|---|---|
| **BC-B*** | Strengthened to carry dry bulk cargoes with cargoes of density 1.0 t/m$^3$ and above with any hold empty at maximum draught. | Bulk Carrier | Discontinued | January 2003 | January 2011 |
| **BWM-TP** | Ballast water management system complying with the Ballast Water Convention (BWM/CONF/36). Ballast water treatment method, where P indicates prototype. | All ships | Discontinued | July 2005 | January 2010 |
| **COW** | Crude oil washing | | Changed to register notation January 1987. Deleted as register notation January 1993 | P | January 1993 |
| **DSV-I SF** | Arranged for support of diving operations. | | Replaced by **DSV-SURFACE** | P | January 2005 |
| **DSV-III SF** | Arranged for support of diving operations. | | Replaced by **DSV-SAT** | P | January 2005 |
| **DSV-BOUNCE** | Arranged for support of diving operations intended for dredging | Support Vessel | Discontinued | January 2005 | January 2009 |
| **DYNPOS** | Basic position keeping system | Support Vessel | Discontinued | P | January 1990 |
| **EL** | Ships built for easy loading of cargo holds | Bulk Carriers with class notations **BC-A** or **BC-B** | Replaced by **EL-1** | July 2007 | January 2009 |
| **EL-1** | Ships built for easy loading of cargo holds, loading each cargo hold in two steps | Bulk Carriers with class notations **BC-A** or **BC-B** and Ore Carriers | Discontinued | January 2009 | July 2009 |
| **EP-1(a%)(+)** | Main and emergency propulsion is provided by a common propulsion system (one propeller) with propulsion machinery redundancy. | All ships | Replaced by **AP-1(a%)(+)**, **AP-2(a%)(+)** and **AP-3(a%)(+)** | January 2006 | January 2010 |
| **EP-2(a%)(+)** | Main and emergency propulsion is provided by separate systems (two propellers). | | | | |
| **EP-3(a%)(+)** | Main and emergency propulsion is provided by separate systems as for **EP-2(a%)(+)**, in addition the prime mover and thruster and their auxiliaries are separated by watertight A-60 bulkheads (two propellers separated). | | | | |
| | **(a%)** the ratio between emergency propulsion power and main propulsion power in %. | All ships with class notation **EP** | | | |
| | **(+)** proven position holding capacity. | All ships with class notation **EP** | | | |

**Table A1 Class Notations no longer used for newbuildings (Continued)**

| *Class notation* | *Description* | *Application* | *Remark* | *Date entered into the rules* | *Date of last issue* |
|---|---|---|---|---|---|
| **EPR** | Electronic propulsion system with designed redundancy | All ships | | January 1990 | January 1996 |
| **ES(D)** | Enhanced strength double side skin bulk carrier | Bulk Carrier | Discontinued | January 1998 | January 2011 |
| **ES(O)** | Enhanced strength ore carrier | Ore Carrier | Discontinued | January 1998 | January 2011 |
| **ES(S)** | Enhanced strength single side skin bulk carrier | Bulk Carrier | Discontinued | January 1998 | January 2011 |
| **Floating Hotel** | Vessel with accommodation for guests at stationary locations in protected waters. | Passenger ships, mandatory as of July 1995 | Service restriction **RE** part of main class | P | July 1997 |
| **GRAIN** | Notation implying that the SOLAS requirements for grain stability are complied with. | Bulk Carrier | SOLAS requirements for grain stability | January 1992 | July 2003 |
| **GRAIN-U** | Grain loading, untrimmed ends. | Bulk Carrier | SOLAS requirements for grain stability | January 1992 | July 2003 |
| **HC** | Strengthened for heavy cargo | Bulk Carrier, IACS S25 | Replaced with **BC-B** | P | January 2003 |
| **HC-E** | Strengthened for heavy cargo with a combination of holds empty at full draught | Bulk Carrier, IACS S25 | Replaced with **BC-A** | P | January 2003 |
| **HC-EA** | Strengthened for heavy cargo with any hold empty at full draught | Bulk Carrier, IACS S25 | Replaced with **BC-B*** | January 1992 | January 2003 |
| **HMON-1** | Hull monitoring systems – basic and more extensive level of instrumentation | All ships | Replaced with **HMON (…)**. System for monitoring hull response, sea state and operational parameters. | July 1995 | July 2004 |
| **HMON-2** | Hull monitoring systems – basic and more extensive level of instrumentation | All ships | Replaced with **HMON (…)**. System for monitoring hull response, sea state and operational parameters. | July 1995 | July 2004 |
| **IB(+)** | Inner bottom strengthened for grab loading and discharging | Bulk Carrier | Replaced by **IB-X** | P | January 2007 |
| **ICE-A** | | | | P | 1969 |
| **ICE-A*** | | | | P | 1969 |
| **ICE-B** | | | | P | 1969 |
| **ICS** | Integration of control and monitoring systems via an integrated network. | All ships | Discontinued | July 1985 | July 2007 |
| **KMC** | Vessel with refrigerating plant. | Dry cargo ships | Replaced by **Reefer** and **RM(..°C/..°C sea)** | P | July 1989 |
| **LCS** | Computer based system for calculation and control of loading conditions | All ships | Replaced with notation **LCD-DC** (Loading computer system - damage control.) | January 1994 | January 2003 |
| **LCS(SIGD)** | Loading computer system.<br>**S** = hull strength,<br>**I** = intact stability,<br>**G** = grain stability,<br>**D** = damage stability | All ships | | January 1994 | July 2001 |
| **Liquid Cargo X-2, H-1 (pt 3-2)** | Chemicals with FP below 60°C, boiling point above 37.8°C, not health dangerous (partly, chemicals with FP below 60°C, boiling point below 37.8°C, health dangerous even in moderate concentrations) | Tanker for Chemicals | | P | P |
| **Liquid Cargo X-3, H-2** | Chemicals with FP below 60°C, boiling point below 37.8°C, health dangerous even in moderate concentrations | Tanker for Chemicals | | P | P |

**Table A1 Class Notations no longer used for newbuildings (Continued)**

| *Class notation* | *Description* | *Application* | *Remark* | *Date entered into the rules* | *Date of last issue* |
|---|---|---|---|---|---|
| **NAUT-A** | Nautical aids, comprising bridge design and nautical instruments as well as the vessel's manoeuvring data and contingency plan | All ships | Discontinued | January 1985 | January 1992 |
| **NAUT-B** | Nautical aids, comprising bridge design and nautical instruments | All ships | Discontinued | January 1985 | January 1992 |
| **NAUT-C** | Nautical aids comprising bridge design (only) | All ships | Discontinued | January 1985 | January 2001 |
| **OCS** | Onboard computer for stability control | All ships | Discontinued when all register notations were replaced by "special feature notations" class notations | January 1991 (as register notation) | July 1993 |
| **PIMS-HULL** | Represents owners or managers' Planned Inspection and Maintenance System for Hull. | All ships | Discontinued<br>Replaced by a planned maintenance system, Hull PMS | January 2007 | July 2010 |
| **PLUS-1** | Structural scantlings and design of critical details in cargo area based on enhanced procedures for fatigue calculations. Intended for ships with a long target life or ships operating in especially harsh areas. | All ships | Discontinued and replaced by **PLUS** | July 1999 | July 2007 |
| **PLUS-2** | Structural scantlings and design of critical details in cargo area based on enhanced procedures for fatigue calculations. Intended for ships with a long target life or ships operating in especially harsh areas. | All ships | Discontinued and replaced by **PLUS** | July 1999 | July 2007 |
| **POS CLE-0(...)** | Dynamic position system without redundancy | All ships | Discontinued and replaced by **DPS 0** | January 2008 | January 2010 |
| **POS CLE-1(...)** | Dynamic positioning system with independent joystick system back-up | All ships | Discontinued and replaced by **DPS 1** | January 2008 | January 2010 |
| **POS CLE-2(...)** | Dynamic positioning system designed with full redundancy | All ships | Discontinued and replaced by **DPS 2** | January 2008 | January 2010 |
| **POS CLE-3(...)** | Dynamic positioning system designed with full redundancy, plus a back-up dynamic position system in an emergency dynamic position control centre, designed with physical separation for components that provide redundancy | All ships | Discontinued and replaced by **DPS 3** | January 2008 | January 2010 |
| **Pontoon** | Vessel without sufficient means for self propulsion | Barge | Replaced partly by **Barge for Deck Cargo**, i.e. barges built for deck load only. | P | January 1991 |
| **PP2** | Specially arranged for preventing sea-pollution. Through combinations of protective tank arrangements, double bottom and side tanks for ballast only. | Tanker for Oil | Discontinued, when MARPOL Annex I, 13F taking effect July1993 | January 1991 (only to Pt.1 Ch.1) | July 1995 |
| **PP3** | Specially arranged for preventing sea-pollution. Double bottom and double side protecting/covering the complete cargo area (possible forward bunker tanks included in cargo area) | Tanker for Oil | Discontinued, when MARPOL Annex I, 13F taking effect July1993 | January 1991 (only to Pt.1 Ch.1) | July 1995 |
| **PST** | Vessel with protected location of slop tank | Tanker for Oil | Introduced as register notation January 1987. Superfluous by MARPOL amendment | P | January 1985, July 1998 |

**Table A1 Class Notations no longer used for newbuildings (Continued)**

| *Class notation* | *Description* | *Application* | *Remark* | *Date entered into the rules* | *Date of last issue* |
|---|---|---|---|---|---|
| **R (…..)** | Service area restriction. Bracket containing specified numbers as a combination of elements and max. allowed distance in nautical miles from safe harbour. | All ships | Replaced by the **R0, R1, R2, R3** and **R4** series of notations | P | January 1991 |
| **SC** | Implies design of vessel provides for a defined degree of survival capability | Passenger and dry cargo vessels | Subdivision arrangement | January 1986 | January 1998 |
| **SSC** | The ship is built in compliance with the subdivision and damage stability requirements in accordance with revised SOLAS Ch.II-1 (IMO MSC194(80)) | Passenger and dry cargo vessels | Discontinued since the requirement is made mandatory in SOLAS | July 2006 | July 2008 |
| **Supply Vessel Basic** | Designed specially for supply services to offshore installations in less severe offshore environments such as: South East Asia, Africa and Brazil | Support vessel | Replaced by **Offshore Service Vessel** | July 2001 | January 2010 |
| **Supply Vessel** | Designed specially for supply services to offshore installations in the North Sea | Support vessel | Replaced by **Offshore Service Vessel (S)** | P | January 2010 |
| **Trawler** | Fishing vessel, with trawling gallows at side making it suitable for side trawling | Side trawling , fishing vessels | Discontinued | P | January 1990 |
| **WINTERIZED (...°C)** | Ships operating in cold climate. Design temperature in °C | All ships | Replaced by **WINTERIZED COLD ($t_1$, $t_2$)** | January 2006 | July 2007 |
| **Whaler** | Vessels purposely built for whale hunting | Fishing | | P | 1967 |

**Notes:**

P indicates that the notation was introduced in or before July 1983.