



RULES FOR  
CLASSIFICATION OF  
**SHIPS**

GENERAL REGULATIONS

PART 1 CHAPTER 2

# CLASS NOTATIONS

JULY 2009

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# CHANGES IN THE RULES

## General

The present edition of the rules includes amendments and additions approved by the Board as of June 2009 and supersedes the January 2009 edition of the same chapter.

The rule changes come into force as described below.

This chapter is valid until superseded by a revised chapter. Supplements will not be issued except for an updated list of corrections presented in Pt.0 Ch.1 Sec.3. Pt.0 Ch.1 is normally revised in January and July each year.

Revised chapters will be forwarded to all subscribers to the rules. Buyers of reprints are advised to check the updated list of rule chapters printed in Pt.0 Ch.1 Sec.1 to ensure that the chapter is current.

## Main changes coming into force 1 July 2009

### • General

— Throughout the chapter, the wording “another IACS member society” has been changed to “a recognized classification society”.

### • Sec.1 Class Notations

- In Table C5 the new class notation **Fire Fighter Capability** has been introduced.
- In Table C6 the class notations **PLUS-1** and **PLUS-2** have been replaced by the class notation **PLUS**.

## Main changes coming into force 1 January 2010

### • Sec.1 Class Notations

- In Table C1, a new row has been inserted covering the new class notation **SPS**.
- In Table C5 the new class notation **ESV** (Enhanced System Verification) has been introduced.
- In Table C6, the new class notation **COAT-PSPC(V)** has been inserted.

## 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.

Comments to the rules may be sent by e-mail to [rules@dnv.com](mailto:rules@dnv.com)

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

\*) 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 smaller lakes.

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

Service area notations	Seasonal zones (nautical miles)		
	Winter	Summer	Tropical
<b>R0</b>	250	No restrictions	No restrictions
<b>R1</b>	100	200	300
<b>R2</b>	50	100	200
<b>R3</b>	20	50	100
<b>R4</b>	5	10	20
<b>RE</b>	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.

Rule set	Size and arrangement
Pt.3 Ch.1 Sec.1 Pt.3 Ch.2 Sec.1	regarding definition of length (barge/push-tug)
Pt.3 Ch.1 Sec.3 Pt.3 Ch.2 Sec.3	regarding subdivision
Pt.3 Ch.1 Sec.5 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.

Class notation	Description	Application	Design requirements, rule reference	Survey requirements, rule reference
<b>Passenger Ship</b>	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
<b>Car and Train Ferry</b>	<b>A</b> 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>B</b> Ro/Ro ship designed for regular transport of passengers and vehicles. Vehicles on weather decks only. Requires operating restriction <b>R2</b> or stricter			
<b>Car Ferry</b>	<b>A</b> 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>B</b> Ro/Ro ship designed for regular transport of passengers and cars. Cars on open decks only. Requires operating restriction <b>R2</b> or stricter			

Class notation		Description	Application	Design requirements, rule reference	Survey requirements, rule reference
<b>Train Ferry</b>	<b>A</b>	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>B</b>	Ro/Ro ship designed for regular transport of passengers and trains. Trains on open decks only. Requires operating restriction <b>R2</b> or stricter			

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

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

Class notation		Description	Application	Design requirements, rule reference	Survey requirements, rule reference
<b>Bulk Carrier</b>		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
<b>Bulk Carrier or Tanker for Oil</b>		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
<b>Container Carrier</b>		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
<b>Ore Carrier</b>		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
<b>Ore Carrier or Tanker for Oil</b>		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
<b>Tanker for</b>	<b>C</b>	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
	<b>Chemicals</b>	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.		
	<b>Compressed Natural Gas</b>	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
	<b>Liquefied Gas</b>	Ships intended for transportation of liquefied gas	Liquefied gas carriers	Pt.5 Ch.5	Pt.7 Ch.1 Sec.2, 3 and 4
	<b>Oil</b>	Ships intended for transport of oil in bulk	Oil carriers	Pt.5 Ch.3	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Oil Products</b>	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.

Class notation	Description	Application	Design requirements, rule reference	Survey requirements, rule reference
<b>ESP</b>	Enhanced survey programme	Mandatory for ships with class notations: <b>Bulk Carrier,</b> <b>Bulk Carrier or Tanker for Oil,</b> <b>Ore Carrier,</b> <b>Ore Carrier or Tanker for Oil,</b> <b>Tanker for Chemicals, Tanker for C,</b> <b>Tanker for Oil</b> and <b>Tanker for Oil Products.</b>		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.

<b>Table B6 Additional mandatory class notations for main ship types</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>BC-</b>	<b>A</b>	Strengthened to carry dry bulk cargoes with cargoes of cargo density 1.0 t/m <sup>3</sup> and above with specified holds empty, at maximum draught.	Mandatory for ships with class notation <b>Bulk Carrier</b> with L > 150 m unless <b>BC-B</b> , <b>BC-B*</b> or <b>BC-C</b> is assigned. Optional for other bulk carriers and general cargo carriers.	Pt.5 Ch.2 Sec.5	N/A
	<b>B</b>	Strengthened to carry dry bulk cargoes with cargoes of cargo density 1.0 t/m <sup>3</sup> and above with all cargo holds loaded.	Mandatory for ships with class notation <b>Bulk Carrier</b> with L > 150 m unless <b>BC-A</b> , <b>BC-B*</b> or <b>BC-C</b> is assigned. Optional for other bulk carriers and general cargo carriers.		
	<b>B*</b>	Strengthened to carry dry bulk cargoes with cargoes of density 1.0 t/m <sup>3</sup> and above with any hold empty at maximum draught	Mandatory for ships with class notation <b>Bulk Carrier</b> with L > 150 m unless <b>BC-A</b> , <b>BC-B</b> or <b>BC-C</b> is assigned. Optional for other bulk carriers and general cargo carriers.		
	<b>C</b>	Strengthened to carry dry bulk cargoes with cargoes of cargo density less than 1.0 t/m <sup>3</sup>	Mandatory for ships with class notation <b>Bulk Carrier</b> with L > 150 m unless <b>BC-A</b> , <b>BC-B</b> or <b>BC-B*</b> is assigned. Optional for other bulk carriers and general cargo carriers.		
<b>BOW LOADING</b>		Bow loading arrangement	Mandatory for <b>Tanker for Oil</b> when installed	Pt.5 Ch.3 Sec.14	Pt.7 Ch.1 Sec.2 A202, B105, B110, C204
<b>CSR</b>		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
<b>ES(...;...;...)</b>	<b>(D)</b>	Enhanced strength Double side skin bulk carrier	Mandatory for double side skin ships with class notation <b>Bulk Carrier</b> , may be used in any combination with the other supplements	Pt.5 Ch.2 Sec.8	N/A
	<b>(O)</b>	Enhanced strength Ore carrier	Mandatory for ships with class notation <b>Ore Carrier</b> , may be used in any combination with the other supplements		
	<b>(S)</b>	Enhanced strength Single side skin bulk carrier	Mandatory for single side skin ships with class notation <b>Bulk Carrier</b> , may be used in any combination with the other supplements		

<b>Table B6 Additional mandatory class notations for main ship types (Continued)</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>HC-</b>	<b>A</b>	Strengthened to carry dry bulk cargoes with cargoes of density 1.0 t/m <sup>3</sup> and above with specified holds empty, at maximum draught.	Mandatory for <b>Bulk Carrier</b> with L < 150 m, unless either <b>HC-A, HC-B*, HC-C, BC-A, BC-B, BC-B*</b> or <b>BC-C</b> is assigned	Pt.5 Ch.2 Sec.5 A	N/A
	<b>B</b>	Strengthened to carry dry bulk cargoes with cargoes of density 1.0 t/m <sup>3</sup> and above with all holds loaded.	Mandatory for <b>Bulk Carrier</b> with L < 150 m, unless either <b>HC-A, HC-B, HC-C, BC-A, BC-B, BC-B*</b> or <b>BC-C</b> is assigned		
	<b>B*</b>	Strengthened to carry dry bulk cargoes with cargoes of density 1.0 t/m <sup>3</sup> and above with any hold empty at maximum draught.	Mandatory for <b>Bulk Carrier</b> with L < 150 m, unless either <b>HC-A, HC-B, HC-B*, BC-A, BC-B, BC-B*</b> or <b>BC-C</b> is assigned		
	<b>C</b>	Strengthened to carry dry bulk cargoes with cargoes of density less than 1.0 t/m <sup>3</sup> .	Not applicable for <b>Bulk Carrier ESP</b> with length more than 150 m.		
	<b>M</b>	Designed to carry dry bulk cargoes, applicable for vessels not in compliance with IACS UR S25.	Not applicable for <b>Bulk Carrier ESP</b> with length more than 150 m.		
<b>Holds n may be empty</b>		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 <b>BC-A</b> or <b>HC-A</b>	Pt.5 Ch.2 Sec.5	N/A
<b>INERT</b>		Systems for inerting of tanks and void spaces within the cargo area	Mandatory if installed on <b>Tanker for Oil</b> with DWT < 20 000 ton	Pt.5 Ch.3 Sec.11	N/A
<b>Maximum Cargo Density</b>	<b>x.y t/m<sup>3</sup></b>	Designed for a maximum cargo density x.y in t/m <sup>3</sup>	Mandatory for <b>Bulk Carrier BC-A</b> or <b>BC-B</b> designed for a maximum cargo density less than 3.0 t/m <sup>3</sup>	Pt.5 Ch.2 Sec.5	N/A
<b>No MP</b>		Ships not designed for loading and unloading in multiple ports	<b>Bulk Carrier</b>	Pt.5 Ch.2 Sec.5	N/A
<b>SPM</b>		Single point mooring	Mandatory for <b>Tanker for Oil</b> when installed	Pt.5 Ch.3 Sec.15	N/A
<b>STL</b>		Submerged turret loading	Mandatory for <b>Tanker for Oil</b> 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
<b>Barge</b>		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
<b>Barge</b>	<b>for Deck Cargo</b>	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
	<b>for Liquefied Gas</b>	Intended for storage and carriage of liquefied gas			
	<b>for Oil</b>	Intended for storage and carriage of oil			
<b>Pipe Laying Barge</b>		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.6	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Cable Laying Barge</b>		Specially intended for laying cables on the sea bottom		Pt.5 Ch.7 Sec.16	Pt.7 Ch.1 Sec.2, 3 and 4 Pt.7 Ch.1 Sec.6 G
<b>Pipe Laying Vessel</b>		Specially intended for laying pipelines on the sea bottom		Pt.5 Ch.7 Sec.6	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Cable Laying Vessel</b>		Specially intended for laying cables on the sea bottom		Pt.5 Ch.7 Sec.16	Pt.7 Ch.1 Sec.2, 3 and 4 Pt.7 Ch.1 Sec.6 G
<b>Car Carrier</b>		Intended for carriage of cars		Pt.5 Ch.2 Sec.7	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Crane Barge</b>		Specially intended for lifting operations	Barge or pontoons without sufficient means for self propulsion for their service area	Pt.5 Ch.7 Sec.7 and Sec.14	Pt.7 Ch.1 Sec.2, 3 and 4 Pt.7 Ch.1 Sec.6 F
<b>Crane Vessel</b>		Specially intended for lifting operations		Pt.5 Ch.7 Sec.7	Pt.7 Ch.1 Sec.2, 3 and 4 Pt.7 Ch.1 Sec.6 F
<b>Dredger</b>		Specially intended for dredging		Pt.5 Ch.7 Sec.8	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Escort</b>	<b>(n,V)</b>	Specially 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 <b>(n,8 n,10)</b>		Pt.5 Ch.7 Sec.15	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Fishing Vessel</b>		Arranged for fishing as main purpose		Pt.5 Ch.6	Pt.7 Ch.1 Sec.2, 3 and 4
<b>General Cargo Carrier</b>		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
<b>Naval</b>		Flying a naval flag and administered by a national naval administration.		Pt.5 Ch.14	Pt.7 Ch.1 Sec.7 A
	<b>[navdist]</b>	In case of deviations from the rules and given class notation and or service restriction.	Also applicable for the class notation <b>Naval Support</b>	Pt.5 Ch.14 Sec.1 E	N/A

<b>Table C1 Optional ship type class notations (Continued)</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>Naval Support</b> (...;...;...;...)	<b>hull</b>	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
	<b>stab</b>	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
	<b>system</b>	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
	<b>fire</b>	Flying a naval flag and administered by a national naval administration with additional naval requirements to fire 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
	<b>evac</b>	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
	<b>radhaz</b>	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
	<b>emc</b>	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
	<b>sam</b>	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
<b>PC-</b>	<b>1</b>	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 <b>PC-1 – PC-6</b> , may be given the additional notation <b>Icebreaker</b>	Pt.5 Ch.1 Sec.8	N/A
	<b>2</b>	Year-round operation in moderate multi-year ice conditions			
	<b>3</b>	Year-round operation in second-year ice which may include multi-year ice inclusions			
	<b>4</b>	Year-round operation in thick first-year ice which may include old ice inclusions			
	<b>5</b>	Year-round operation in medium first-year ice which may include old ice inclusions			
	<b>6</b>	Summer/autumn operation in medium first-year ice which may include old ice inclusions			
	<b>7</b>	Summer/autumn operation in thin first-year ice which may include old ice inclusions	All ships		
<b>Pusher</b>		Specially intended for pushing		Pt.5 Ch.7 Sec.12	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
<b>Pusher/Barge Unit</b>		Specially intended for pushing	Barge or pontoons without sufficient means for self propulsion for their service area	Pt.5 Ch.7 Sec.13	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Reefer</b>	(...°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
<b>Refrigerated Fruit Juice Carrier</b>		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
<b>Sealer</b>		Designed for catching seals		Pt.5 Ch.1 Sec.5	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Slop Reception and Processing facility</b>		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
<b>SPS</b>		Ships carrying special personnel who are neither crew members nor passengers		Pt.5 Ch.7 Sec.18	Pt.7 Ch.1 Sec.7
<b>Standby Vessel</b>		Especially designed to carry out rescue and standby services to offshore installations		Pt.5 Ch.7 Sec.17	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Stern Trawler</b>		Arranged for fishing as main purpose		Pt.5 Ch.6 Sec.2	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Supply Vessel</b>		Designed specially for supply services to offshore installations in the North Sea		Pt.5 Ch.7 Sec.3	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Supply Vessel</b>	<b>Basic</b>	Designed specially for supply services to offshore installations in less severe offshore environments such as: South East Asia, Africa and Brazil		Pt.5 Ch.7 Sec.3	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Tanker for Asphalt</b>		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
<b>Tanker for Potable Water</b>		Intended for transport of potable water in bulk		Pt.5 Ch.13	Pt.7 Ch.1 Sec.4 B and C
<b>Tug</b>		Specially intended for towing		Pt.5 Ch.7 Sec.2	Pt.7 Ch.1 Sec.2, 3 and 4
<b>Well Stimulation Barge</b>		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
<b>Well Stimulation Vessel</b>		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 Pt.7 Ch.1 Sec.6 B
<b>X Carrier</b>		<b>Bulk Carrier</b> specialised for the carriage of a single type of dry bulk cargo. <b>X</b> denotes the type of bulk cargo to be carried, e.g. <b>Alumina Carrier, Cement Carrier, Sugar Carrier</b> 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.

<b>Table C2 Optional class notations related to cargo</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>(S)</b>		Arranged for carriage of fish in bulk, with shifting boards in cargo holds	<b>Fishing Vessel and Stern Trawler</b>	Pt.5 Ch.6	N/A
<b>[...] TEU</b>		Number of twenty-foot equivalent container units (TEU) that may be carried	Container carriers	Pt.5 Ch.2 Sec.6	N/A
<b>CA</b>		Permanently equipped for carriage of fruit needing controlled atmosphere in cargo chambers.	Ships with class notation <b>Reefer</b>	Pt.5 Ch.10 Sec.5	Pt.7 Ch.1 Sec.6 D
<b>CA</b>	<b>(port.)</b>	Permanently equipped for carriage of fruit needing controlled atmosphere in cargo chambers with partly portable equipment	Ships with class notation <b>Reefer</b>	Pt.5 Ch.10 Sec.5	Pt.7 Ch.1 Sec.6 D
<b>CONTAINER</b>		Arranged for carriage of containers	All ships except <b>Container Carrier</b> (implicit)	Pt.5 Ch.2 Sec.6	N/A
<b>COW</b>		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
<b>DG-</b>	<b>B</b>	Arranged for carriage of dangerous in solid bulk cargoes		Pt.5 Ch.11	Pt.7 Ch.1 Sec.6 E
	<b>P</b>	Arranged for carriage of dangerous goods in packaged form		Pt.5 Ch.11	Pt.7 Ch.1 Sec.6 E
<b>EC</b>		Ships built for easy cleaning of cargo holds	Cargo ships	Pt.5 Ch.2 Sec.5	Pt.7 Ch.1 Sec.7 E
<b>EL-1</b>		Ships built for easy loading of cargo holds, loading each cargo hold in two steps	Bulk Carriers with class notations <b>BC-A</b> or <b>BC-B</b> and Ore Carriers	Pt.5 Ch.2 Sec.5	Pt.7 Ch.1 Sec.7 E
<b>EL-2</b>		Ships built for easy loading of cargo holds, loading each cargo hold in one step	Bulk Carriers with class notations <b>BC-A</b> or <b>BC-B</b> and Ore Carriers	Pt.5 Ch.2 Sec.5	Pt.7 Ch.1 Sec.7 E
<b>HOT</b>	<b>(...°C cargo tank no ...)</b>	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
<b>LFL</b>		Designed for carriage of liquid with flashpoint lower than 60°C	All ships except <b>Tanker for Oil</b> and <b>Tanker for Chemicals</b>	Pt.5 Ch.7 Sec.10	Pt.7 Ch.1 Sec.2 A and C, Sec.4 B and C
<b>LFL</b>	<b>*</b>	Flashpoint lower than 43°C			
<b>NLS</b>		Complying with MARPOL Annex II requirements for NLS certificate (Noxious Liquid Substances)	Oil carriers	Pt.5 Ch.3 Sec.1	N/A
<b>PET</b>		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
<b>REGAS-</b>	<b>1</b>	For vessels with regasification plants mainly intended for shuttle operation	Liquefied natural gas carriers	Pt.5 Ch.5 Sec.1	N/A
	<b>2</b>	For vessels with regasification plants mainly intended for continuous operation			
<b>RM</b>	<b>(...°C/...°C sea)</b>	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
<b>RM CONTAINER</b>		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.

<b>Table C3 Optional class notations related to service area</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>ICE-</b>	<b>E</b>	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
	<b>C</b>	Ships with basic ice strengthening	All ships		
	<b>1C</b>	Ships constructed according to baltic ice rules. Ice thickness 0.4 m	All ships		
	<b>1B</b>	Ships constructed according to baltic ice rules. Ice thickness 0.6 m	All ships		
	<b>1A</b>	Ships constructed according to baltic ice rules. Ice thickness 0.8 m	All ships		
	<b>1A*</b>	Ships constructed according to baltic ice rules. Ice thickness 1.0 m	All ships		
	<b>1A*F</b>	Ships constructed according to baltic ice rules. High powered ships for regular traffic in heavy Baltic ice.	All ships		
	<b>05</b>	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
	<b>10</b>	Ships constructed according to arctic ice rules. Ice thickness 1.0 m, no ramming anticipated			
	<b>15</b>	Ships constructed according to arctic ice rules. Ice thickness 1.5 m, no ramming anticipated			
<b>Icebreaker</b>		Designed for icebreaking as main purpose		Pt.5 Ch.1 Sec.4	Pt.7 Ch.1 Sec.2, 3 and 4
<b>POLAR-</b>	<b>10</b>	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
	<b>20</b>	Ships constructed according to arctic ice rules with ice thickness 2.0 m, accidental ramming			
	<b>30</b>	Ships constructed according to arctic ice rules with ice thickness 3.0 m, accidental ramming			
<b>WINTERIZED BASIC</b>		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 Y
<b>WINTERIZED COLD</b>	<b>(t<sub>1</sub>, t<sub>2</sub>)</b>	Ships operating in cold climate environments for longer periods, where <b>t<sub>1</sub></b> = material design temp. in °C, <b>t<sub>2</sub></b> = extreme design temp. in °C	All ships	Pt.5 Ch.1 Sec.6	Pt.7 Ch.1 Sec.6 Y
<b>WINTERIZED ARCTIC</b>	<b>(t<sub>1</sub>, t<sub>2</sub>)</b>	Ships operating in cold climate environments for longer periods, where <b>t<sub>1</sub></b> = material design temp. in °C, <b>t<sub>2</sub></b> = 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 Y

**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.

<i>Class notation</i>	<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>BIS</b>	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
<b>ESP</b>	Ships subject to an enhanced survey programme	Bulk and oil carriers	N/A	Pt.7 Ch.1 Sec.2, 3 and 4
<b>PIMS-HULL</b>	Represents owners or managers' Planned Inspection and Maintenance System for Hull.	All ships Replaced <b>PIMS (HULL)</b> in July 2007	N/A	Pt.7 Ch.1 Sec.7 D
<b>SBM</b>	Management of safety and environment protection in ship operation	All ships	N/A	Pt.7 Ch.3 Sec.1
<b>TMON</b>	Tailshaft condition monitoring arrangement	All ships	Pt.4 Ch.4 Sec.1 E	Pt.7 Ch.1 Sec.6 Q
<b>RATE-A</b>	Represents an enhanced standard for the reporting of hull structure condition. Further, the notation will, on a ship type level, aim at complying with current and future technical standards in excess of main class.	All ships Replaces <b>RATE (A)</b> in July 2007	N/A	Pt.7 Ch.1 Sec.7 B

**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.

<i>Class notation</i>	<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>			
<b>BWM-</b>	<b>E(...)</b>	Ballast water management system complying with the Ballast Water Convention (BWM/CONF/36). Ballast water exchange method. (...) denotes exchange of ballast method, <b>s</b> , <b>f</b> or <b>d</b> .	All ships	Pt.6 Ch.18 Sec.3	Pt.7 Ch.1 Sec.6 W		
	<b>EP(...)</b>	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, <b>s</b> , <b>f</b> or <b>d</b> .	All ships				
	<b>s</b>	Exchange by sequential method.	All ships with class notation <b>BWM-E</b> and <b>BMW-EP</b>				
	<b>f</b>	Exchange by flow through method.					
	<b>d</b>	Exchange by dilution method.					
	<b>T</b>	Ballast water management system complying with the Ballast Water Convention (BWM/CONF/36). Ballast water treatment method.	All ships			Pt.6 Ch.18 Sec.3	Pt.7 Ch.1 Sec.6 W
	<b>TP</b>	Ballast water management system complying with the Ballast Water Convention (BWM/CONF/36). Ballast water treatment method, where P indicates prototype.					

<b>Table C5 Optional class notations related to equipment and systems (Continued)</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>CCO</b>		Centralised operation of cargo and ballast handling systems	All ships	Pt.6 Ch.6	Pt.7 Ch.1 Sec.4 C204
<b>CLEAN</b>		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
<b>CLEAN-</b>	<b>DESIGN</b>	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
<b>CRANE</b>		Certification of shipboard crane	All ships except for <b>Crane Vessel</b> (implicit)	Pt.6 Ch.1 Sec.3	Pt.7 Ch.1 Sec.6 F
<b>DEICE</b>		De-icing or anti-icing systems	All ships	Pt.6 Ch.1 Sec.5	Pt.7 Ch.1 Sec.6 J
<b>DEICE-</b>	<b>C</b>	Including cargo deck area	All ships	Pt.6 Ch.1 Sec.5	Pt.7 Ch.1 Sec.6 J
<b>DSV-</b>	<b>BOUNCE</b>	Arranged for support of diving operations intended for dredging		Pt.6 Ch.1 Sec.4 DNV-OSS-305 DNV-OS-E402	Pt.7 Ch.1 Sec.6 I
	<b>SAT</b>	Arranged for support of diving operations with no operating restrictions			
	<b>SURFACE</b>	Arranged for support of diving operations with operating restrictions to maximum depth 60 m and operating time 8 h			
<b>DYNPOS-</b>	<b>AUT</b>	Dynamic positioning system with an independent joystick system back-up and a position reference back-up.	Support Vessel	Pt.6 Ch.7	Pt.7 Ch.1 Sec.6 L
	<b>AUTR</b>	Dynamic positioning system with redundancy in technical design and with an independent joystick system back-up.			
	<b>AUTRO</b>	Dynamic positioning system with redundancy in technical design and with an independent joystick system back-up, plus a back-up dynamic positioning control system.			
	<b>AUTS</b>	Dynamic positioning system without redundancy.			
		<b>(A)</b> Annual survey to be carried out according to scope for complete survey.	All vessels with class notation <b>DYNPOS-AUTR</b> and <b>DYNPOS-AUTRO</b>		
		Environmental regularity number, <b>ern(a,b,c)</b> ; indicates probable regularity for keeping position	All vessels with class notation <b>DYNPOS-</b>	Pt.6 Ch.7 Sec.6	Pt.7 Ch.1 Sec.6 L
<b>E0</b>		Instrumentation and automation installed to allow for unattended machinery space	All ships	Pt.6 Ch.3	Pt.7 Ch.1 Sec.2 A208, C107, Sec.4 C110
<b>ECO</b>		Instrumentation and automation installed to allow for centralised operated machinery	All ships	Pt.6 Ch.3	Pt.7 Ch.1 Sec.2 A208, C107, Sec.4 C110

<b>Table C5 Optional class notations related to equipment and systems (Continued)</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>EP-</b>	<b>1(a%)(+)</b>	Main and emergency propulsion is provided by a common propulsion system (one propeller) with propulsion machinery redundancy, e.g.:  — 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 — 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 X
	<b>2(a%)(+)</b>	Main and emergency propulsion is provided by separate systems (two propellers), e.g.:  — 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.			
	<b>3(a%)(+)</b>	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).			
		<b>(a%)</b> the ratio between emergency propulsion power and main propulsion power in %.	All ships with class notation <b>EP</b>	Pt.6 Ch.19	Pt.7 Ch.1 Sec.6 X
		<b>(+)</b> proven position holding capacity.	All ships with class notation <b>EP</b>	Pt.6 Ch.19	Pt.7 Ch.1 Sec.6 X
<b>ESV-</b>	<b>DP[...]</b>	Vessels having undergone enhanced verification of dynamic positioning (DP) systems (Pt.6 Ch.7)	All ships	Pt.6 Ch.22	N/A
	<b>TAM[...]</b>	Vessels having undergone enhanced verification of thruster assisted mooring or automatic thruster assisted mooring (TAM) systems (DNV-OS-E301)			
	<b>[...]</b>	contain the verification method signifying the method of verification <b>HIL</b> “Hardware-In-the-Loop” testing			

<b>Table C5 Optional class notations related to equipment and systems (Continued)</b>						
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>	
<b>F-</b>	<b>A</b>	In the accommodation spaces. Can be assigned in combination with <b>C</b> and <b>M</b>	All ships	Pt.6 Ch.4	Pt.7 Ch.1 Sec.6 K	
	<b>C</b>	In the cargo area. Can be assigned in combination with <b>A</b> and <b>M</b>				
	<b>M</b>	In the machinery spaces. Can be assigned in combination with <b>A</b> and <b>C</b>				
<b>Fire Fighter</b>	<b>Capability</b>	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.5	Pt.7 Ch.1 Sec.2, 3 and 4 Pt.7 Ch.1 Sec.6 A	
		<b>I</b>	Early stage fire fighting and rescue operations close to structure on fire.			All ships intended for fighting fires on board ships and on offshore and onshore structures
		<b>II</b>	Continuous fighting of large fires and cooling of structures. Can be assigned in combination with <b>Fire Fighter I</b>			
		<b>III</b>	Continues fighting of large fires and cooling of structures with larger water pumping capacity and more comprehensive fire fighting equipment than for <b>II</b> . Can be assigned in combination with <b>Fire Fighter I</b>			
<b>FIRENAV</b>		Additional fire protection	Naval ships	Pt.5 Ch.14 Sec.11 I	N/A	
<b>FUEL</b>	(...cSt, ...kg/m <sup>3</sup> , ...°C)	Fuel treatment and conditioning system, where the fuel oil maximum kinematic viscosity at 50°C is given in cSt and the fuel oil maximum density at 15°C is given in kg/m <sup>3</sup> and the minimum outside air temperature is given in °C	All ships	Pt.6 Ch.14	Pt.7 Ch.1 Sec.6 R	
<b>FC-POWER</b>		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	
<b>FC-SAFETY</b>		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	
<b>GAS FUELLED</b>		Gas engine installations	Mandatory when installed, except for steam driven <b>LNG Carrier</b>	Pt.6 Ch.13	Pt.7 Ch.1 Sec.2, 3 and 4	
<b>HELDK</b>		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	

<b>Table C5 Optional class notations related to equipment and systems (Continued)</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>HELDK-</b>	<b>S</b>	Additional requirements to ship safety. Can be assigned in combination with <b>H</b> and <b>F</b>	All ships	Pt.6 Ch.1 Sec.2	Pt.7 Ch.1 Sec.6 H
	<b>H</b>	Additional requirements to helicopter safety. Can be assigned in combination with <b>S</b> and <b>F</b>			
	<b>F</b>	Additional requirements to helicopter facilities. Can be assigned in combination with <b>S</b> and <b>H</b>			
	<b>SH(CAA-N)</b> <b>SHF(CAA-N)</b>	<b>(CAA-N)</b> 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.			
<b>HMON-</b>	<b>(...)</b>	Instrumentation system for monitoring of hull behaviour where (...) denotes additional supplements denote amount and type of monitoring equipment: <b>A, C, D, E, G, H, L, M, N, O, P, S, T, W</b>	All ships	Pt.6 Ch.11	Pt.7 Ch.1 Sec.6 N
<b>LCS-</b>	<b>DC</b>	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
<b>MCDK</b>		Vessels arranged with movable car decks	All ships	Pt.5 Ch.2 Sec.7	Pt.7 Ch.1 Sec.4 B121

<b>Table C5 Optional class notations related to equipment and systems (Continued)</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>NAUT-</b>	<b>AW</b>	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
	<b>OC</b>	Requirements to bridge design, instrumentation, location of equipment and bridge procedures with basic requirements.			
	<b>Q</b>	Requirements to bridge design, instrumentation, location of equipment and bridge procedures with requirements to navigator qualifications			
	<b>NAVY</b>	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
	<b>OSV(A)</b>	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
	<b>OSV(T)</b>	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. 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".			

Table C5 Optional class notations related to equipment and systems (Continued)					
Class notation		Description	Application	Design requirements, rule reference	Survey requirements, rule reference
<b>NAV-</b>	<b>O</b>	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 U
<b>POS CLE-</b>	<b>0(...)</b>	Dynamic position system without redundancy	All ships	Pt.6 Ch.21	Pt.7 Ch.1 Sec.6 L
	<b>1(...)</b>	Dynamic positioning system with independent joystick system back-up			
	<b>2(...)</b>	Dynamic positioning system designed with full redundancy			
	<b>3(...)</b>	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			
		The parenthesis after each notation shall contain the losing Society's acronym			
	<b>(A)</b> Requiring annual survey	All vessels with class notation <b>POS-CLE2(...)</b> and <b>POS-CLE3(...)</b>			
<b>POSMOOR</b>		Position mooring systems	Support vessel	DNV-OS-E301	Pt.7 Ch.1 Sec.6 Y200
<b>POSMOOR-</b>	<b>ATA</b>	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 Y200
	<b>TA</b>	Position mooring systems with thruster assisted mooring system dependent on manual remote thrust control system			
	<b>V</b>	Position mooring systems with mooring system which is designed for positioning of a vessel in vicinity of other structures			
<b>RC-</b>	<b>1 (X/Y)</b>	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
	<b>2 (X/Y)</b>	Ships equipped for carriage of refrigerated containers, with self contained refrigeration systems requiring electrical power supply; 50-80% chilled cargo			
	<b>3 (X/Y)</b>	Ships equipped for carriage of refrigerated containers, with self contained refrigeration systems requiring electrical power supply; less than 50% chilled cargo			
		<b>(X)</b> number of forty-foot equivalent refrigerated units that may be carried on deck.	Dry cargo ships with class notation <b>RC-</b>	Pt.5 Ch.2 Sec.10	Pt.7 Ch.1 Sec.6 T
		<b>(Y)</b> number of forty-foot equivalent refrigerated units that may be carried in holds.			

<b>Table C5 Optional class notations related to equipment and systems (Continued)</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>RP</b>		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
<b>RPS</b>		Redundant propulsion that in addition to <b>RP</b> 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
<b>VCS-</b>	<b>1</b>	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
	<b>2</b>	Systems for control of vapour emission from cargo tanks and in compliance with IMO MSC/Circ. 585 and USCG CFR 46 Part 39			
	<b>3</b>	Systems for control of vapour emission from cargo tanks and with a minimum recovery rate 65%			
	<b>B</b>	Additional requirements to vapour balancing	Ships with class notation <b>VCS-1, VCS-2</b> or <b>VCS-3</b>	Pt.6 Ch.10	Pt.7 Ch.1 Sec.6 O
<b>VIBR</b>		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 V

**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.

<b>Table C6 Optional class notations related to design features</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>(N)</b>		Ship also complying with the requirements of the Norwegian Maritime Directorate (NMD) or the Norwegian Petroleum Directorate (NPD)	<b>Fishing Vessel (NMD), Stern Trawler (NMD), Drilling Vessel (NPD)</b>	Pt.5 Ch.6 Sec.7 Pt.5 Ch.7 Sec.6	N/A
<b>(navdist)</b>		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: <b>(navdist)</b> - meaning naval distinction.	<b>Naval Vessels, Naval Support Vessels</b>	Pt.5 Ch.14	NA
<b>(S)</b>		Additional strength of superstructure & deckhouse	<b>Standby Vessel</b> and ships with <b>DSV</b> notation	Pt.5 Ch.7 Sec.17 F	N/A
<b>COAT-</b>	<b>1</b>	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
	<b>2</b>	Additional requirements for corrosion prevention of tanks and holds for newbuildings and with coating system specification 2			
	<b>PSPC(X)</b>	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) The 'X' in the parentheses will denote corrosion prevention of different tanks and spaces/areas, as follows: <b>(B)</b> - IMO PSPC requirements for dedicated seawater ballast tanks of all types of vessels <b>(D)</b> - IMO PSPC requirements for double side-skin spaces of bulk carriers <b>(V)</b> - IMO PSPC requirements for void spaces of bulk carriers and oil tankers	All ships	Pt.3 Ch.1 Sec.15	N/A
<b>COMF-</b>	<b>C(crn)</b>	Comfort class covering requirements for indoor climate.	All ships, can be used in combination with <b>V(crn)</b>	Pt.5 Ch.12	N/A
	<b>V(crn)</b>	Comfort class covering requirements for noise and vibration.	All ships, can be used in combination with <b>C(crn)</b>		
	<b>crn</b>	Comfort rating number. Values 1, 2 and 3 denote the level of comfort, where 1 is the highest level.	All ships with class notation <b>COMF-</b>		

<b>Table C6 Optional class notations related to design features (Continued)</b>					
<i>Class notation</i>		<i>Description</i>	<i>Application</i>	<i>Design requirements, rule reference</i>	<i>Survey requirements, rule reference</i>
<b>CSA-</b>	<b>2</b>	Structural scantlings based on extended calculation procedure covering loads and structural response analysis. More comprehensive than the scope of <b>NAUTICUS (Newbuilding)</b>	All ships	Pt.3 Ch.1 Sec.15	N/A
	<b>FLS</b>	Structural scantlings on ship specified details and based on extended calculation procedure covering loads and structural response analysis.			
<b>DAT</b>	<b>(-X°C)</b>	Design ambient air temperature for structural material properties where (-X°C) designates the lowest design ambient temperature in °C	All ships	Pt.3 Ch.1 Sec.2 B	N/A
<b>DK(+)</b>		Decks strengthened for heavy cargo	Dry cargo ships	Pt.3 Ch.1 Sec.4 C	N/A
<b>ETC</b>		Arranged for effective tank cleaning	<b>Tanker for Oil, Tanker for Oil Products, Tanker for Chemicals</b>	Pt.5 Ch.3 Sec.1	N/A
<b>GRAB</b>	<b>[X]</b>	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
<b>HA</b>	<b>(+)</b>	Hatches strengthened for heavy cargo	Dry cargo ships	Pt.3 Ch.1 Sec.4 C	N/A
<b>HL(...)</b> (cargo tank no...)		Tanks or holds strengthened for heavy liquid where (...) gives maximum cargo density in t/m <sup>3</sup> and (cargo tank no...) indicates cargo tank or hold no..	<b>Tanker for Oil, Tanker for Oil Products, Tanker for Chemicals</b>	Pt.3 Ch.1 Sec.4 C	N/A
<b>IB-</b>	<b>X</b>	Inner bottom strengthened for grab loading and discharging where <b>X</b> denotes which areas (area <b>1</b> , <b>2</b> , or <b>3</b> ) are to be strengthened	Bulk Carrier, replaced <b>IB(+)</b> in July 2007	Pt.3 Ch.1 Sec.6 H	N/A
<b>IB</b>	<b>(+)</b>	Inner bottom strengthened for grab loading and discharging	Bulk Carrier	Pt.3 Ch.1 Sec.6 H	N/A
<b>ICM</b>	<b>(BT)</b>	Increased corrosion margin in ballast tanks	All ships	Pt.3 Ch.1 Sec.2 D	N/A
	<b>(BTs)</b>	Increased corrosion margin in ballast tanks, strength deck of the ship and 1.5 m below			
	<b>(BTu)</b>	Ballast tanks, upper part of the ship (above D/2)			
	<b>(CH)</b>	Increased corrosion margin in cargo holds			
	<b>(CHs)</b>	Increased corrosion margin in cargo holds, strength deck of the ship and 1.5 m below			
	<b>(CHu)</b>	Increased corrosion margin in cargo holds, upper part of the ship (above D/2)			
	<b>(CT)</b>	Increased corrosion margin in cargo oil tanks			
	<b>(CTs)</b>	Increased corrosion margin in cargo oil tanks, strength deck of the ship and 1.5 m below			
<b>(CTu)</b>	Increased corrosion margin in cargo oil tanks, upper part of the ship (above D/2)				
<b>OILREC</b>		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.12	Pt.7 Ch.1 Sec.6 C

Class notation		Description	Application	Design requirements, rule reference	Survey requirements, rule reference
<b>OPP-</b>	<b>F</b>	Additional oil pollution prevention measures for the fuel oil system	All ships	Pt.6 Ch.1 Sec.6	Pt.7 Ch.1 Sec.4
<b>PLUS</b>		Additional requirements for the fatigue life of hull structural details	All ships	Pt.3 Ch.1 Sec.15	N/A
<b>PWDK</b>		Decks strengthened for wheel loading	Dry cargo ships	Pt.5 Ch.2 Sec.4	N/A
<b>RO/RO</b>		Arranged for roll-on roll-off cargo handling	General cargo carrier	Pt.5 Ch.2 Sec.4	N/A
<b>SF</b>		Compliance to damage stability requirements	Supply Vessel, Supply Vessel Basic	Pt.5 Ch.7 Sec.4	N/A

**C 800 The NAUSICUS notation**

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

**802** The **NAUSICUS** 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 **NAUSICUS** notation with additional notations will be given the notation **NAUSICUS (notation 1, notation 2, etc.)**.

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

Class notation		Description	Application	Design requirements, rule reference	Survey requirements, rule reference
<b>NAUSICUS</b>	<b>(Newbuilding)</b>	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 <b>Tanker for Oil</b> with L > 190 m, <b>Bulk Carrier BC-B</b> or <b>BC-C</b> with L > 190 m, <b>Bulk Carrier BC-B*</b> or <b>BC-A</b> with L > 170 m and <b>Container Carrier</b> with L > 190 m	Pt.3 Ch.1 Sec.15	N/A
	<b>(Operation)</b>	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. Historical Class Notations

#### A 100 General

**101** Historically, 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 D1 gives reference to the last issue of the rules containing the requirements for such notations.

<i>Class notation</i>	<i>Description</i>	<i>Application</i>	<i>Remark</i>	<i>Date entered into the rules</i>	<i>Date of last issue</i>
<b>1A2</b>	Last remaining of a series of Main character of Class that started with the <b>1A1</b> (the highest class) stepwise down to at one time 3C2.		Given in the last few years to vessels found meeting the requirements, but for reason of special design, materials, general condition and/or age, it was considered necessary to stipulate shorter intervals between surveys than those of main class <b>1A1</b> .	P	July 2002
<b>Arctic Ice Breaker</b>	Ship designed for icebreaking as main purpose, with additional strength compared to <b>Icebreaker</b>			P	January 1987
<b>AUT</b>	Dynamic positioning system with an independent joystick back-up and a position reference back-up	Support Vessel	Replaced with <b>DYNPOS-AUT</b> , (which it again superseded when introduced)	January 2001	July 2002
<b>AUTR</b>	Dynamic positioning system with redundancy in technical design and with an independent joystick back-up.	Support Vessel	Replaced with <b>DYNPOS-AUTR</b> , (which it again superseded when introduced)	January 2001	July 2002
<b>AUTRO</b>	Dynamic positioning system with redundancy in technical design and with an independent joystick back-up + a back-up DP-control system in an emergency DP-control centre designed with physical separation for components that provide redundancy.	Support Vessel	Replaced with <b>DYNPOS-AUTRO</b> (, which it again superseded when introduced)	January 2001	July 2002
<b>AUTS</b>	Dynamic positioning system without redundancy.	Support Vessel	Replaced with <b>DYNPOS-AUTS</b> (, which it again superseded when introduced)	January 2001	July 2002
<b>Barge for Deck Loading</b>	A barge built for deck load only	Barge or pontoons without sufficient means for self propulsion for their service area	Renamed to Barge for <b>Deck Cargo</b>	January 1992	January 2000
<b>COW</b>	Crude oil washing		Changed to register notation January 1987. Deleted as register notation January 1993	P	January 1993
<b>CSA-1</b>	Structural scantlings based on extended calculation procedure covering loads and structural response analysis. Qualification <b>(25)</b> or <b>(30)</b> specified is design fatigue life applicable.	All ships.	Replaced by <b>NAUTICUS (Newbuilding)</b> as from July 1998.	January 1994	July 1999
<b>Dangerous Solid Bulk Cargoes</b>	Ships designed for the carriage of dangerous solid bulk cargoes, as per SOLAS 1981 II-2 Reg.54 and IMO Res.A438	Dry cargo ships	Superseded by <b>DG-B</b>	January 1991	January 1992
<b>DRL</b>	Classification of the drilling derrick	Drilling Vessel	Included in the scope of the more extensive notation <b>DRILL</b>	P	January 1984
<b>DSV-I SF</b>	Arranged for support of diving operations.		Replaced by <b>DSV-SURFACE</b>	P	January 2005

<b>Table D1 Historical class notations (Continued)</b>					
<i>Class notation</i>	<i>Description</i>	<i>Application</i>	<i>Remark</i>	<i>Date entered into the rules</i>	<i>Date of last issue</i>
<b>DSV-II SF</b>	Arranged for support of diving operations.		Replaced by <b>DSV-BOUNCE</b>	P	January 2005
<b>DSV-III SF</b>	Arranged for support of diving operations.		Replaced by <b>DSV-SAT</b>	P	January 2005
<b>DYNPOS</b>	Basic position keeping system	Support Vessel	Discontinued	P	January 1990
<b>DYNPOS-T</b>	Semi automatic position keeping system without redundancy.	Support Vessel	Discontinued	January 1990	January 2001
<b>E0/RO</b>	Vessels with refrigerating plants equipped for periodically unattended operation	All ships		P	July 1992
<b>EPR</b>	Electronic propulsion system with designed redundancy	All ships		January 1990	January 1996
<b>Experimental</b>	Vessels designed or built according to previously untried methods			P	January 1991
<b>Fishing</b>	A notation still in use for wooden vessels, while no longer used for steel ships	Fishing	Discontinued for steel built vessels	P	1978
<b>Floating Hotel</b>	Vessel with accommodation for guests at stationary locations in protected waters.	Passenger ships, mandatory as of July 1995	Service restriction <b>RE</b> part of main class	P	July 1997
<b>GRAIN</b>	Notation implying that the SOLAS requirements for grain stability are complied with.	Bulk Carrier	SOLAS requirements for grain stability	January 1992	July 2003
<b>GRAIN-U</b>	Grain loading, untrimmed ends.	Bulk Carrier	SOLAS requirements for grain stability	January 1992	July 2003
<b>HA (-)</b>	Vessel with under-dimensioned hatches	Assigned to one vessel only. Id.no.12121		Assigned to one vessel only. Id.no.12121	
<b>HC</b>	Strengthened for heavy cargo	Bulk Carrier, IACS S25	Replaced with <b>BC-B</b>	P	January 2003
<b>HC-E</b>	Strengthened for heavy cargo with a combination of holds empty at full draught	Bulk Carrier, IACS S25	Replaced with <b>BC-A</b>	P	January 2003
<b>HC-EA</b>	Strengthened for heavy cargo with any hold empty at full draught	Bulk Carrier, IACS S25	Replaced with <b>BC-B*</b>	January 1992	January 2003
<b>HMON-1</b>	Hull monitoring systems – basic and more extensive level of instrumentation	All ships	Replaced with <b>HMON (...)</b> . System for monitoring hull response, sea state and operational parameters.	July 1995	July 2004
<b>HMON-2 or HULL MON-2</b>	Hull monitoring systems – basic and more extensive level of instrumentation	All ships	Replaced with <b>HMON (...)</b> . System for monitoring hull response, sea state and operational parameters.	July 1995	July 2004
<b>IB(+)</b>	Inner bottom strengthened for grab loading and discharging	Bulk Carrier	Replaced by <b>IB-X</b>	P	January 2007
<b>ICE-A</b>				P	1969
<b>ICE-A*</b>				P	1969
<b>ICE-B</b>				P	1969
<b>ISM</b>	Notation given to ships operating in compliance with the ISM code for safe ship operation and pollution prevention	All ships	Discontinued.	July 1994	January 1996
<b>ICS</b>	Integration of control and monitoring systems via an integrated network.	All ships	Discontinued	July 1985	July 2007
<b>KMC</b>	Vessel with refrigerating plant.	Dry cargo ships	Replaced by <b>Reefer</b> and <b>RM(..°C/..°C sea)</b>	P	July 1989
<b>LCS</b>	Computer based system for calculation and control of loading conditions	All ships	Replaced with notation <b>LCD-DC</b> (Loading computer system - damage control.)	January 1994	January 2003

<b>Table D1 Historical class notations (Continued)</b>					
<i>Class notation</i>	<i>Description</i>	<i>Application</i>	<i>Remark</i>	<i>Date entered into the rules</i>	<i>Date of last issue</i>
<b>LCS(SIGD)</b>	Loading computer system. <b>S</b> = hull strength, <b>I</b> = intact stability, <b>G</b> = grain stability, <b>D</b> = damage stability	All ships		January 1994	July 2001
<b>Liquid Cargo X-2, H-1 (pt3-2)</b>	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
<b>Liquid Cargo X-3, H-2</b>	Chemicals with FP below 60°C, boiling point below 37.8°C, health dangerous even in moderate concentrations	Tanker for Chemicals		P	P
<b>Liquid Cargo X-3, H-2 (pt 3-3)</b>	Chemicals with FP below 60°C, boiling point below 37.8°C, health dangerous even in moderate concentrations (partly, chemicals with FP below 60°C, boiling point below 37.8°C, health dangerous even in small concentrations)	Tanker for Chemicals		P	P
<b>NAUT-A</b>	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
<b>NAUT-B</b>	Nautical aids, comprising bridge design and nautical instruments	All ships	Discontinued	January 1985	January 1992
<b>NAUT-C</b>	Nautical aids comprising bridge design (only)	All ships	Discontinued	January 1985	January 2001
<b>NAUTICUS (Propulsion)</b>	Alternative classification procedures for diesel propulsion machinery for ships in operation phase			January 1999	July 2002
<b>NAV</b>	Equipped with navigational aids and bridge systems		Replaced by <b>NAUT-A, NAUT-B, NAUT-C</b>	P	January 1985
<b>OCS</b>	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
<b>Oil Production and Storage Vessel</b>	Vessel intended for production and storage of crude oil. Additional letter <b>N</b> may be given		Reference is made to DNV OSS	July 1987	
<b>Oil Production Vessel</b>	Vessel intended for production of crude oil. Additional letter <b>N</b> may be given		Reference is made to DNV OSS	July 1987	
<b>Oil Storage Vessel</b>	Vessel intended for storage of crude oil. Additional letter <b>N</b> may be given		Reference is made to DNV OSS	January 1991	
<b>PIMS (HULL)</b>	The notation <b>PIMS-HULL</b> represents owners or managers' Planned Inspection and Maintenance System for Hull.	All ships	Replaced by <b>PIMS-HULL</b> in July 2007	January 2007	July 2007
<b>PLUS-1</b>	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 <b>PLUS</b>	July 1999	July 2007

<b>Table D1 Historical class notations (Continued)</b>					
<i>Class notation</i>	<i>Description</i>	<i>Application</i>	<i>Remark</i>	<i>Date entered into the rules</i>	<i>Date of last issue</i>
<b>PLUS-2</b>	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 <b>PLUS</b>	July 1999	July 2007
<b>Pontoon</b>	Vessel without sufficient means for self propulsion	Barge	Replaced partly by <b>Barge for Deck Cargo</b> , i.e. barges built for deck load only.	P	January 1991
<b>PP1</b>	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
<b>PP2</b>	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
<b>PP3</b>	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
<b>PROD</b>	Vessel having an oil production plant complying with relevant requirements		Reference is made to DNV OSS	July 1987 (MOU Pt.6 Ch.6)	
<b>PST</b>	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
<b>R (.....)</b>	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 <b>R0, R1, R2, R3</b> and <b>R4</b> series of notations	P	January 1991
<b>RATE (A)</b>	Represents an enhanced standard for the reporting of hull structure condition. Further, the notation will, on a ship type level, aim at complying with current and future technical standards in excess of main class.	All ships	Replaced by <b>RATE-A</b> in July 2007	January 2007	January 2007
<b>SC</b>	Implies design of vessel provides for a defined degree of survival capability	Passenger and dry cargo vessels	Subdivision arrangement	January 1986	January 1998
<b>SSC</b>	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
<b>T</b>	Vessels for carriage of ore or similar heavy cargo			P	1973
<b>Tanker for Refrigerated Fruit Juice</b>	Ships built for transport of fruit juices and similar cargoes in refrigerated tanks		Changed to <b>Refrigerated Fruit Juice Carrier</b>	July 1992	
<b>Trawler</b>	Fishing vessel, with trawling galleys at side making it suitable for side trawling	Side trawling , fishing vessels	Discontinued	P	January 1990
<b>VAC</b>	Oil leakage protection system (vacuum)	Tanker for Oil	Discontinued, when MARPOL Annex I, 13F taking effect July1993	January 1991 (only to Pt.1 Ch.1)	January 1997

<b>Table D1 Historical class notations (Continued)</b>					
<i>Class notation</i>	<i>Description</i>	<i>Application</i>	<i>Remark</i>	<i>Date entered into the rules</i>	<i>Date of last issue</i>
<b>W1</b>	Extended requirements re. one-man bridge workstation. Grounding avoidance system and automation level. Information on manoeuvring characteristics. Operational safety. Optional extension: <b>-Q</b> (navigator qualification)	All ships	Replaced with notation <b>NAUT-AW</b> . The letter <b>Q</b> was introduced January 2001	July 1991	January 2001
<b>W1-OC</b>	Basic one man bridge operation design, for open seas and coastal waters. Workstation arrangement, range and location of equipment. Optional extension: <b>-Q</b> (navigator qualification)	All ships	Replaced with notation <b>NAUT-OC</b> . The letter <b>Q</b> was introduced January 2001	July 1991	
<b>WINTERIZED (...°C)</b>	Ships operating in cold climate. Design temperature in °C	All ships	Replaced by <b>WINTERIZED COLD (t<sub>1</sub>, t<sub>2</sub>)</b>	January 2006	July 2007
<b>WINTERIZED ARCTIC (...°C)</b>	Satisfying additional requirements for pollution prevention in vulnerable arctic areas. Design temperature in °C	All ships	Replaced by <b>WINTERIZED ARCTIC (t<sub>1</sub>, t<sub>2</sub>)</b>	January 2006	July 2007
<b>Whaler</b>	Vessels purposely built for whale hunting	Fishing		P	1967
<b>Notes:</b>					
P indicates that the notation was introduced in or before July 1983.					