

RULES FOR CLASSIFICATION

Ships

Edition January 2016

Part 1 General regulations

Chapter 2 Class notations

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FOREWORD

DNV GL rules for classification contain procedural and technical requirements related to obtaining and retaining a class certificate. The rules represent all requirements adopted by the Society as basis for classification.

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CHANGES – CURRENT

This document supersedes the October 2015 edition.

Changes in this document are highlighted in red colour. However, if the changes involve a whole chapter, section or sub-section, normally only the title will be in red colour.

Main changes January 2016, entering into force 1 July 2016

- Sec.3 Ship type notations
 - Table 5: Added class notations:
 - **Tanker for oil products with flashpoint above 60°C**
 - **Tanker for asphalt/bitumen.**
 - Table 6: Added class notation **Tanker for chemicals with flashpoint above 60°C.**

- Sec.4 Additional class notations
 - Table 1: Added class notations:
 - **Hot**
 - **Block loading.**
 - Table 3: Added class notation **Scrubber ready**
 - Table 6: Added class notation **CHEM**
 - Table 10: Added qualifiers for class notation **TMON**:
 - **Closed loop water**
 - **Open loop water.**

Editorial corrections

In addition to the above stated changes, editorial corrections may have been made.

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SECTION 1 CLASS NOTATIONS

1 General

1.1 Introduction

1.1.1 All vessels classed with the Society may be assigned

- construction symbol
- main class notation
- ship type notation
- additional Class Notation
- service area notation

as applicable.

1.1.2 Class notations are assigned in order to determine applicable rule requirements for assignment and retention of class. Applicable class notations are given in [Sec.2](#) to [Sec.5](#).

1.1.3 Class notations are either mandatory or optional. The mandatory class notations are indicated in the tables given in [Sec.2](#) to [Sec.5](#).

1.1.4 In accordance with [Ch.1 Sec.1 \[2.2.5\]](#) optional class notations from the Society's other rule books may, upon special consideration, be assigned to a vessel complying with those rules.

1.1.5 Class notations may be given one or more qualifiers which are supplementary symbols used to identify variants of the class notation or a design parameter. Qualifiers typically denote differences in levels of complexity and/or special requirements or limitations, and may be assigned additional requirements. Qualifiers follow immediately after a class notation and are indicated in parenthesis. Multiple qualifiers are separated by comma and space.

1.1.6 Class notations and qualifiers are shown in **bold**. See [Table 1](#) for examples of class notations and qualifiers.

1.1.7 The Tables in [Sec.2](#) to [Sec.5](#) include the following information:

- name of class notation
- indication of class notation being mandatory
- reference to design requirements*
- reference to survey requirements for Fleet in Service (FIS)*)
- qualifiers as relevant
- purpose of class notation
- application, giving additional information on when and/or where a class notation can be applied and/or under what condition a class notation is mandatory.

* NA indicates no requirements.

1.1.8 Examples of typical class notations are shown in Table 1.

Table 1 Examples of class notations

	<i>Example 1</i>	<i>Example 2</i>	<i>Example 3</i>
Construction symbol (see Sec.2 [1])	✱	✱	✱
Main Class Notation (see Sec.2 [2])	1A	1A	1A
Ship type notations (see Sec.3)	Container ship	Tanker for oil	Offshore service vessel(Supply)
Additional Class Notations (see Sec.4):			
Related to structural strength and integrity		CSR	Strengthened(DK)
Related to propulsion, power generation and auxiliary systems	E0	E0	E0
Related to navigation and manoeuvring	NAUT(AW, ICS)		NAUT(OSV)
Related to cargo operation	RSCS	Bow loading	
Related to equipment and design features	DG		LFL HELDK(S, H) SF
Related to cold climate	Ice(E)		Ice(1A) Winterized(Basic)
Related to environmental protection and pollution control	Clean		Clean(Design)
Related to survey arrangement	BIS TMON	ESP TMON	

SECTION 2 CONSTRUCTION SYMBOL AND MAIN CLASS NOTATION

1 Construction symbols

1.1 General

1.1.1 The construction symbol **☒** will be assigned to vessels built under the supervision of the Society.

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

1.1.3 Vessels other than those described in [1.1.1] and [1.1.2] will not be assigned a construction symbol when classed with the Society.

2 Main Class Notation

2.1 General

2.1.1 The main class notation **1A** will be assigned to vessels 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.

2.1.2 The main class notation **1A** will also be assigned to vessels designed and constructed in accordance with the rules of another classification society, and later assigned class with the Society.

SECTION 3 SHIP TYPE NOTATIONS

1 Introduction

1.1 General

1.1.1 Vessels that comply with requirements defined in Pt.5 may be given a ship type notation as indicated in Table 1 to Table 13 of this section.

1.1.2 A vessel may be assigned more than one ship type notation provided that the respective requirements are met.

1.1.3 Certain ship type notations are mandatory based on e.g.:

- type of cargo
- number of passengers
- the ability to execute special operations.

2 Dry cargo ships

Table 1 Ship type notations for dry cargo ships

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
General dry cargo ship Mandatory: Yes Design requirements: Pt.5 Ch.1 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of unitized and dry bulk cargo	Mandatory for ships occasionally carrying dry cargo in bulk, unless ship type notation Multi-purpose dry cargo ship is assigned
Multi-purpose dry cargo ship Mandatory: Yes Design requirements: Pt.5 Ch.1 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of unitized and dry bulk cargo	Mandatory for ships occasionally carrying dry cargo in bulk, unless ship type notation General dry cargo ship is assigned

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
<p>Bulk carrier</p> <p>Mandatory: Yes</p> <p>Design requirements: Pt.5 Ch.1</p> <p>FIS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Carriage of dry bulk cargo	Mandatory for sea-going single deck ships with cargo holds of single and/or double side skin construction, with a double bottom, hopper side tanks and top-wing tanks fitted below the upper deck, and intended for the carriage of solid bulk cargoes
<p>Ore carrier</p> <p>Mandatory: Yes</p> <p>Design requirements: Pt.5 Ch.1</p> <p>FIS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Carriage of ore cargo in dry bulk	Mandatory for sea-going single deck ships having two longitudinal bulkheads and a double bottom throughout the cargo region, and intended for carrying ore cargoes in the centre hold only
<p>X carrier</p> <p>Mandatory: Yes</p> <p>Design requirements: Pt.5 Ch.1</p> <p>FIS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Specialised for the carriage of a single type of dry bulk.	Mandatory unless ship type notation Bulk carrier is assigned. X denotes type of bulk cargo to be carried, limited to either, Woodchips, Cement, Fly ash , or Sugar
<p>Great lakes bulk carrier</p> <p>Mandatory: Yes</p> <p>Design requirements: Pt.5 Ch.1</p> <p>FIS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Carriage of dry bulk cargo	Designed to operate within the limits of the Great Lakes and St. Lawrence river to the seaward limits defined by the Anticosti Island

3 Container ships

Table 2 Ship type notation for container ships

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
<p>Container ship Mandatory: Yes Design requirements: Pt.5 Ch.2 FiS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Carriage of containers	Ships exclusively intended for the carriage of containers. Carriage of break bulk on inner bottom may be accepted in special cases.

4 RO/RO ships

Table 3 Ship type notations for RO/RO ships

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
<p>RO/RO ship Mandatory: No Design requirements: Pt.5 Ch.3 FiS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Loading and unloading the cargo by Roll on/ Roll off (RO/RO)	
<p>Car carrier Mandatory: No Design requirements: Pt.5 Ch.3 FiS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Carriage of vehicles	

5 Passenger ships

Table 4 Ship type notations for passenger ships

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Passenger ship Mandatory: Yes Design requirements: Pt.5 Ch.4 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of passenger	More than 12 passengers
Ferry Mandatory: Yes Design requirements: Pt.5 Ch.4 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	A	Carriage of passengers and vehicles.	More than 12 passengers and vehicles on enclosed decks
	B	Carriage of passengers and vehicles.	More than 12 passengers and vehicles on weather decks only. Requires service area restriction R2 or stricter

6 Oil tankers

Table 5 Ship type notations for oil tankers

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Tanker for oil Mandatory: Yes Design requirements: Pt.5 Ch.5 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of oil in bulk	For carriage of oil
Tanker for oil products Mandatory: Yes Design requirements: Pt.5 Ch.5 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of oil products in bulk	For carriage of all oil products except crude oil

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Bulk carrier or tanker for oil Mandatory: Yes Design requirements: Pt.5 Ch.1 Sec.3 Pt.5 Ch.5 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of dry bulk cargo alternating with carriage of oil	Combination carrier
Tanker for oil products with flashpoint above 60°C Mandatory: Yes Design requirements: Pt.5 Ch.5 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of all types of oil products with flashpoint above 60°C	
Tanker for asphalt/bitumen Mandatory: Yes Design requirements: Pt.5 Ch.1 Sec.3 Pt.5 Ch.5 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of liquid asphalt/bitumen in bulk	

7 Chemical tankers

Table 6 Ship type notations for chemical tankers

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Tanker for c Mandatory: Yes Design requirements: Pt.5 Ch.6 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of specific type of liquid chemical. "c" denotes the type of cargo for which the ship is Classed.	Chemical carriers according to the IBC or BHC code. Cargoes not requiring full compliance with Pt.5 Ch.6 Sec.1 to Pt.5 Ch.6 Sec.17 .

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Tanker for chemicals Mandatory: Yes Design requirements: Pt.5 Ch.6 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of chemicals	Chemical carriers with cargos listed in the IBC code Ch.17 and Ch.18 with additions given in IMO MEPC.2/Circ. XX List 1.
Tanker for chemicals with flashpoint above 60°C Mandatory: Yes Design requirements: Pt.5 Ch.6 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of non-flammable liquid chemicals or liquid chemicals with flashpoint above 60°C and which are not heated to within 15°C or more of its flashpoint	

8 Liquefied gas tankers

Table 7 Ship type notation for liquefied gas tankers

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Tanker for liquefied gas Mandatory: Yes Design requirements: Pt.5 Ch.7 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of liquefied gas	

9 Compressed gas tankers

Table 8 Ship type notation for compressed gas tankers

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Tanker for compressed natural gas Mandatory: Yes Design requirements: Pt.5 Ch.8 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Carriage of compressed natural gas	

10 Offshore service vessels

Table 9 Ship type notations for offshore service vessels

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Offshore service vessel Mandatory: No Design requirements: Pt.5 Ch.9 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , Pt.7 Ch.1 Sec.4 , and Pt.7 Ch.1 Sec.6 [34]	<None>	For vessels providing services for offshore installations	
	+	For services in harsh weather conditions	
	Anchor handling	Towing of floating objects and handling of anchoring equipment	
	Towing	Towing floating objects in open waters	
	Supply	Platform Supply services	
	AHTS	Towing of floating objects, handling of anchoring equipment, and platform supply services	Compliance with Anchor handling, Towing and Supply
	Windfarm maintenance	Maintenance and service of offshore wind farms	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Standby vessel Mandatory: No Design requirements: Pt.5 Ch.9 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Rescue operations and standby services	
	S	Rescue operations and standby services in harsh weather conditions, e.g. the North Sea	

11 Vessels for special operations

Table 10 Ship type notations for vessels for special operations

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Crane vessel Mandatory: No Design requirements: Pt.5 Ch.10 Sec.2 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , Pt.7 Ch.1 Sec.4 , and Pt.7 Ch.1 Sec.6	<None>	Crane operations	
Cable laying vessel Mandatory: No Design requirements: Pt.5 Ch.10 Sec.3 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Cable laying	
Pipe laying vessel Mandatory: No Design requirements: Pt.5 Ch.10 Sec.4 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Pipe laying	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
<p>Semi-submersible heavy transport vessel</p> <p>Mandatory: Yes</p> <p>Design requirements: Pt.5 Ch.10 Sec.5</p> <p>FIS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Carriage of heavy unitized dry cargo	Designed to load and unload deck cargo by temporarily submerging its cargo deck through ballast operations
<p>Diving support vessel</p> <p>Mandatory: No</p> <p>Design requirements: Pt.5 Ch.10 Sec.6</p> <p>FIS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Diving support operations	
	SAT	Diving support operations with no operating restrictions	
	Surface	Diving support operations with operating restrictions to maximum depth of 60 m and operating time 8 hr	
<p>Seismic vessel</p> <p>Mandatory: No</p> <p>Design requirements: Pt.5 Ch.10 Sec.7</p> <p>FIS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Seismographic research	Requirements to hull arrangement and strength
	A	Seismographic research	Requirements to systems and equipment
<p>Well stimulation vessel</p> <p>Mandatory: No</p> <p>Design requirements: Pt.5 Ch.10 Sec.8</p> <p>FIS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Well stimulation	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Fire fighter Mandatory: No Design requirements: Pt.5 Ch.10 Sec.9 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Fire fighting	
	I	Fire fighting with active protection, giving it the capability to withstand higher heat radiation loads from external fires	
	I+	Fire fighting with 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 fire fighting of large fires and cooling of structures. Can be assigned in combination with Fire fighter (I)	
	III	Continuous fire 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)	
	Capability	Fire fighting capability	Vessels not specifically built for fire fighting purpose but for which have special fire fighting capabilities in addition to their regular service.
Icebreaker Mandatory: No Design requirements: Pt.5 Ch.10 Sec.10 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Ice breaking	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Tug Mandatory: No Design requirements: Pt.5 Ch.10 Sec.11 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Towing of other vessels by towlines	
	Escort(Fs, t, v)	Steering and manoeuvring operations of other vessels by towlines	F_s indicates maximum transverse steering pull in ton, exerted by the escort tug on the stern of the assisted vessel, t is the time required for the change of the tug's position from one side to the corresponding opposite side, and v is the speed at which this pull may be attained
Dredger Mandatory: No Design requirements: Pt.5 Ch.10 Sec.12 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Dredging	
	Suction	Suction dredging	
Pusher Mandatory: No Design requirements: Pt.5 Ch.10 Sec.13 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Pushing	

12 Non-self-propelled vessels

Table 11 Ship type notations for non-self-propelled vessels

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Barge Mandatory: Yes Design requirements: Pt.5 Ch.11 Sec.2 FIS survey requirements: Pt.7 Ch.1 Sec.2 , and Pt.7 Ch.1 Sec.4	<None>	Vessels with cargo hold	No means of self-propulsion for transit
	Hopper	Vessels for dredging operations with self-unloading through the bottom	
	Concrete	Vessels made of concrete and with cargo hold	
Pontoon Mandatory: Yes Design requirements: Pt.5 Ch.11 Sec.3 FIS survey requirements: Pt.7 Ch.1 Sec.2 , and Pt.7 Ch.1 Sec.4	<None>	Vessels without cargo hold	No means of self-propulsion for transit

13 Fishing vessels

Table 12 Ship type notations for fishing vessels

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Fishing vessel Mandatory: No Design requirements: Pt.5 Ch.12 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Fishing	
	S	Arranged for carriage of fish in bulk, with shifting boards in cargo holds	
	N		Fishing vessel complying with the requirements of the Norwegian Maritime Directorate (NMD)
Stern trawler Mandatory: No Design requirements: Pt.5 Ch.12 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Fishing	Stern trawling
	S	Arranged for carriage of fish in bulk, with shifting boards in cargo holds	
	N		Fishing vessel complying with the requirements of the Norwegian Maritime Directorate (NMD)

14 Naval vessels

Table 13 Ship type notations for naval and naval support vessels

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
<p>Naval Mandatory: Yes Design requirements: Pt.5 Ch.13 Sec.3 FiS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	Naval operations	Naval flagged vessels and administered by a national naval administration
<p>Naval landing craft Mandatory: Yes Design requirements: HSLC/NC Pt.5 Ch.13 Sec.3 FiS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3, and Pt.7 Ch.1 Sec.4</p>	<None>	For vessels intended to carry troops, vehicles and equipment combined with beach landing operations.	Naval flagged vessels and administered by a national naval administration $L_{pp} < 40$ m

SECTION 4 ADDITIONAL CLASS NOTATIONS

1 Introduction

1.1 General

1.1.1 Vessels that comply with the requirements provided in Pt.6 may be assigned corresponding additional Class Notation as indicated in Table 1 to Table 11 of this section.

1.1.2 Certain additional Class Notations are mandatory for certain types of installation, features, or equipment installed; (e.g. **Bow loading, Battery(Power), Inert**) where the Society has found that these constitute possible hazards to personnel and/or the vessel. Mandatory additional Class Notations are indicated in the tables referred below.

Additional Class Notations made mandatory for different ship types are also referred in Pt.5.

2 Structural strength and integrity

Table 1 Additional class notations related to structural strength and integrity

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Grab Mandatory: Yes Design requirements: Pt.6 Ch.1 Sec.1 FiS survey requirements: NA	1-X	Strengthened inner bottom for grab loading and unloading with grab mass X ≥ 20 t	Mandatory for ships with Class Notation HC(M) , and Mandatory for ships with freeboard length $L_{LL} > 150$ m and carrying solid bulk cargoes having a density ≥ 1.0 t/m ³ , unless Grab (2-X) or Grab (3-X) is assigned
	2-X	Strengthened inner bottom, and lower part of transverse bulkhead for grab loading and unloading with grab mass X ≥ 20 t	
	3-X	Strengthened inner bottom, and lower part of transverse bulkhead and longitudinal bulkhead for grab loading and unloading with grab mass X ≥ 20 t	Mandatory for Ore carrier with Class Notation OC(M) or OC(H) Mandatory for ships with Class Notation HC(A) , HC(B) or HC(B*)
Strengthened Mandatory: No Design requirements: Pt.6 Ch.1 Sec.2 FiS survey requirements: NA	HA	Weather deck hatch covers strengthened for heavy cargo	
	DK	Weather deck strengthened for heavy cargo	
	IB	Inner bottom strengthened for heavy cargo	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Hot Mandatory: Yes Design requirements: Pt.6 Ch.1 Sec.12 FiS survey requirements: NA	T_c	Cargo tanks designed for high temperature cargo with a maximum design cargo temperature of T_c in °C	Mandatory for ships with notation Tanker for asphalt/bitumen and other oil tankers intended for the carriage of liquid cargo at a temperature higher than 80°C at atmospheric pressure.
HL Mandatory: No Design requirements: Pt.6 Ch.1 Sec.3 FiS survey requirements: NA	ρ	Tanks or holds strengthened for heavy liquid, where ρ denotes the maximum density in t/m ³ in specified cargo tanks	
HC Mandatory: Yes Design requirements: Pt.6 Ch.1 Sec.4 FiS survey requirements: NA	A	Strengthened to carry dry bulk cargoes of density ≥ 1.0 t/m ³ with specified holds empty at scantling draught, in addition to HC(B) .	HC with one of qualifiers AB, B*C or M are mandatory for: <ul style="list-style-type: none"> – General dry cargo ship designed for carriage of solid bulk cargoes, with <i>L</i> ≥ 150 m, having minimum five cargo holds – Multi-purpose dry cargo ship designed for carriage of solid bulk cargoes, with <i>L</i> ≥ 150 m, having minimum five cargo holds – Bulk carrier without CSR notation, with <i>L</i> ≥ 150 m
	B	Strengthened to carry dry bulk cargoes of density ≥ 1.0 t/m ³ with all holds loaded, in addition to HC(C) .	
	B*	Strengthened to carry dry bulk cargoes of density ≥ 1.0 t/m ³ with any hold empty at scantling draught	
	C	Strengthened to carry dry bulk cargoes of density < 1.0 t/m ³	
	M	Designed to carry dry bulk cargoes as described in the loading manual	
Maximum cargo density Mandatory: Yes Design requirements: Pt.6 Ch.1 Sec.4 and IACS Common Structural Rules Pt.1 Ch.1 Sec.1 FiS survey requirements: NA	ρ	Designed for a maximum cargo density ρ in t/m ³ .	Mandatory for ships with Class Notation BC(A), BC(B), HC(A)HC(B) or HC(B*) designed for a maximum cargo density < 3.0 t/m ³

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
No MP Mandatory: No Design requirements: Pt.6 Ch.1 Sec.4 and IACS Common Structural Rules Pt.1 Ch.1 Sec.1 FiS survey requirements: NA	<None>	Ships not designed for loading and unloading in multiple ports	May be applied to ships with class notation BC(A) , BC(B) , BC(C) , HC(A) , HC(B) or HC(C)
Block loading Mandatory: No Design requirements: Pt.6 Ch.1 Sec.4 and IACS Common Structural Rules Pt.1 Ch.1 Sec.1 FiS requirements: NA	<None>	Ships intended to operate in alternate block condition	May be applied to ships with class notation BC(A) or HC(A)
OC Mandatory: Yes Design requirements: Pt.6 Ch.1 Sec.5 FiS requirements: NA	M	Strengthened for loading and unloading in multiple ports, in addition to OC(H) notation	Mandatory for ships with Class Notation Ore carrier with $L \geq 150$ m, unless OC(H) is assigned
	H	Designed to carry ore cargoes in seagoing homogeneous loading conditions	Mandatory for ships with Class Notation Ore carrier with $L \geq 150$ m, unless OC(M) is assigned
Holds n may be empty Mandatory: Yes Design requirements: Pt.6 Ch.1 Sec.4 and Pt.6 Ch.1 Sec.5 , and IACS Common Structural Rules Pt.1 Ch.1 Sec.1 FiS survey requirements: NA	<None>	Holds may be empty at maximum draught (for OC(M) maximum draught among the seagoing loading conditions in the loading manual) where n is the identification number for each hold that may be empty	Mandatory for ships with Class Notation BC(A) , HC(A) , HC(M) , if alternate loading conditions are included in the loading manual, or OC(M)
Plus Mandatory: No Design requirements: Pt.6 Ch.1 Sec.6 FiS survey requirements: NA	<None>	Extended scope of fatigue strength assessment for hull structural details	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
CSA Mandatory: No Design requirements: Pt.6 Ch.1 Sec.7 FIS requirements: NA	1	Fatigue strength control in accordance with CSA(FLS1) and ultimate strength check based on direct load calculations	
	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)	
RSD Mandatory: Yes Design requirements: Pt.6 Ch.1 Sec.8 FIS requirements: NA	<None>	Structure strength is verified by means of global finite element assessments	Mandatory for vessels with Class Notation Container ship having one of the following characteristics: <ul style="list-style-type: none"> – novel design – complex structural arrangement – $L \geq 330\text{m}$ – $B \geq 47\text{m}$ – $v \geq 25\text{kn}$ – hatch coaming built of VL D47 or VL E47 steel grades.
COAT-PSPC Mandatory: No Design requirements: Pt.6 Ch.1 Sec.9 FIS survey requirements: Pt.7 Ch.1 Sec.6,	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), SOLAS Ch.II-1, Reg. 3-11 and IMO Res. MSC.288(87).	The X denotes: <ul style="list-style-type: none"> B requirements for dedicated seawater ballast tanks of all types of vessels C requirements for cargo oil tanks of crude oil tankers D requirements for double side-skin spaces of bulk carriers V requirements for void spaces of bulk carriers and oil tankers

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
COLL Mandatory: No Design requirements: Pt.6 Ch.1 Sec.10 FiS survey requirements: NA	X	Hull side structures specially evaluated for collision impacts	The qualifier X shall be an integral number between 1 and 6 and denotes the amount of strengthening of the side structures against collisions
WIV Mandatory: No Design requirements: Pt.6 Ch.1 Sec.11 FiS survey requirements: NA	<None>	Fatigue and ultimate hull girder strength verified under explicit consideration of wave induced vibrations (Whipping and Springing)	Container ship

Guidance note:

L is the rule length as defined in Pt.3 Ch.1 Sec.4

---e-n-d---of---g-u-i-d-a-n-c-e---n-o-t-e---

Table 2 Additional class notations related to vessels in accordance with IACS common structural rules only

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
CSR Mandatory: Yes Design requirements: IACS Common Structural Rules Pt.1 Ch.1 Sec.1 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Vessel designed and built according to IACS common structural rules.	Mandatory for: Bulk carrier with $L \geq 90$ m and cross section in accordance with CSR Pt.1 Ch.1 Sec.1 [1.2.1] Tanker for oil, Tanker for oil products , with $L \geq 150$ m
BC Mandatory: Yes Design requirements: IACS Common Structural Rules Pt.1 Ch.1 Sec.1 FiS survey requirements: NA	A	Strengthened to carry dry bulk cargoes of density $\geq 1.0 \text{ t/m}^3$ with specified holds empty at scantling draught, in addition to BC(B) .	Mandatory for ships with Class Notation Bulk carrier with $L \geq 150$ m, unless BC(B) or BC(C) is assigned.
	B	Strengthened to carry dry bulk cargoes of density $\geq 1.0 \text{ t/m}^3$ with all holds loaded, in addition to BC(C) .	Mandatory for ships with Class Notation Bulk carrier with $L \geq 150$ m, unless BC(A) or BC(C) is assigned.

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
	C	Strengthened to carry dry bulk cargoes of density < 1.0 t/m ³	Mandatory for ships with Class Notation Bulk carrier with $L \geq 150$ m, unless BC(A) or BC(B) is assigned.
Grab Mandatory: Yes Design requirements: IACS Common Structural Rules Pt.1 Ch.1 Sec.1 FiS survey requirements: NA	X	Strengthened for grab loading and discharging with grab mass X ≥ 20 t	Mandatory for ships with Class Notation BC(A) or BC(B)

3 Propulsion, power generation and auxiliary systems

Table 3 Additional class notations related to propulsion, power generation and auxiliary systems

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Battery Mandatory: Yes Design requirements: Pt.6 Ch.2 Sec.1 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	Power	Battery installations for propulsion and other services	Mandatory for vessels where the battery power is used as the main source of power, or when the battery is used as a redundant source of power for Class Notations
	Safety	Battery installations used as an additional source of power	Mandatory for vessels where the battery installation is used as an additional source of power and has an aggregate capacity exceeding 50kWh (excluding Lead Acid and NiCd batteries)
E0 Mandatory: No Design requirements: Pt.6 Ch.2 Sec.2 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	<None>	Unattended machinery space	
ECO Mandatory: No Design requirements: Pt.6 Ch.2 Sec.2 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	<None>	Centralised Operated machinery	
FC Mandatory: Yes Design requirements: Pt.6 Ch.2 Sec.3 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	Power	Fuel cell installations	Mandatory where the fuel cell power is used for essential, important or emergency services
	Safety	Fuel cell installations where the fuel cell power is not used for essential, important or emergency users.	Mandatory where the fuel used is a gas or a liquid fuel with flash point below 60°C

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Fuel Mandatory: No Design requirements: Pt.6 Ch.2 Sec.4 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	v, ρ, T	Fuel treatment and conditioning system, where v is maximum viscosity in cSt at 50°C, ρ is maximum density in kg/m ³ of the fuel oil at 15°C, and T is minimum outside air temperature in °C for which the installations are approved	
Gas fuelled Mandatory: Yes Design requirements: Pt.6 Ch.2 Sec.5 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	<None>	Gas fuelled engine installations	Mandatory when installed
Gas ready Mandatory: No Design requirements: Pt.6 Ch.2 Sec.8 FiS survey requirements: NA	D	Ship is designed for future conversion to liquefied natural gas (LNG) fuel	The qualifier D is mandatory for assigning the Class Notation Gas ready , and indicates that the design for the ship with LNG as fuel is in compliance with the Gas fuelled notation applicable for the Newbuilding, ref. Pt.1 Ch.1 Sec.2 [1.3].
	S	Installed structural reinforcements to support the fuel containment system (LNG fuel tank(s)), and materials to support the relevant temperatures are used.	
	T	Installed Fuel containment system (LNG fuel tank(s)).	
	P	Installed pipe routing, structural arrangements for bunkering station, and gas valve unit space.	
	MEC	Main engine(s) installed can be converted to dual fuel.	The qualifier MEC is mandatory for assigning the Class Notation Gas ready . MEI can be used as an alternative.
	MEI	Main engine(s) installed can be operated on gas fuel.	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
	AEC	Auxiliary engine(s) installed can be converted to dual fuel.	The auxiliary engine capacity after conversion shall be sufficient for the ship power balance.
	AEI	Auxiliary engines installed can be operated on gas fuel.	
	B	Boilers installed are capable of burning gas fuel.	
	MISC	Additional systems and equipment are installed on board from newbuilding stage.	
LFL fuelled Mandatory: Yes Design requirements: Pt.6 Ch.2 Sec.6 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	<None>	Low flashpoint liquid fuelled engine installations	Mandatory when installed
RP Mandatory: No Design requirements: Pt.6 Ch.2 Sec.7 FiS survey requirements: NA	1	Main and alternative propulsion is provided by a common propulsion system (one propeller, one shaft and one rudder/steering gear) with redundant prime movers or two or more propellers	
	2	Propulsion and steering are of a redundant design with two (or more) propellers in parallel operation	
	3	Propulsion and steering are of a redundant design with two (or more) propellers in parallel operation and separated by watertight A-60 bulkheads	
	x	% of the propulsion power and where relevant, associated steering system, can be restored and maintained after single failure	Mandatory for RP(1) , RP(2) , and RP(3)

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
	+	Propulsion power and steering capacity is maintained without disruption upon any single failure	
Scrubber ready Mandatory: No Design requirements: Pt.6 Ch.2 Sec.9 FiS survey requirements: NA	D	Ready for installation of a dry scrubber system	Mandatory, mutually exclusive qualifiers.
	C	Ready for installation of a wet closed scrubber system	
	H	Ready for installation of a wet hybrid scrubber system	
	O	Ready for installation of a wet open scrubber system	
	IL	Ready for in-line installation of scrubber system with one individual linear scrubber unit per consumer	Mandatory, mutually exclusive qualifiers.
	MI	Ready for installation of scrubber system with multiple inlets to one or more scrubber units	
	HS	Structural supports and ship structures are prepared for installation of a scrubber system at newbuilding stage	
	R	Review of the future scrubber installation system for compliance according to relevant class rules	Complete review according to main class rules. Includes piping and electrical systems. Control and monitoring verification is limited according to 5.2.
	MISC	An agreed number of systems and or components to be included from new building stage and followed up by the Society throughout the new building process	Certification and installation of parts of the scrubber systems before delivery based on agreement between owner and yard, with detailed list provided to Society for acceptance
	S	The future scrubber installation complies with Marpol annex 6 regulation 4 and 14, and MEPC.259(68)	If DNVGL is authorized by flag to issue the IAPP certificate. Review according to IMO resolution MEPC.259(68)

4 Navigation and manoeuvring

Table 4 Additional class notations related to navigation and manoeuvring

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
DYNPOS Mandatory: No Design requirements: Pt.6 Ch.3 Sec.1 and Pt.6 Ch.3 Sec.2 FIS survey requirements: Pt.7 Ch.1 Sec.6	AUTS	Dynamic positioning system with no redundancy.	Includes single DP control system and manual levers control back-up
	AUT	Dynamic positioning system with no redundancy. Provides higher availability and robustness compared to DPS(1)	Includes single DP control system, single joystick control system and manual levers control back-up.
	AUTR	Dynamic positioning system with redundancy in technical design. Provides higher availability and robustness compared to DPS(2)	Includes redundant DP control system, single joystick control system and manual levers control back-up.
	AUTRO	Dynamic positioning system with redundancy and separation in technical design. Provides higher availability and robustness compared to DPS(3)	Includes redundant DP control system, single joystick control system and manual levers control back-up. In addition a single DP control system in a separated back-up control space.
	E	Dynamic positioning system with enhanced reliability. Position and heading keeping ability meets intentions comparable to or exceeding DPS(2)	Includes redundant DP control system and single independent alternative DP control system and manual levers control back-up. Provides flexibility and increased availability of power and thrust by use of connected power systems, standby start and change-over of generator sets and thrusters.
	ER	Dynamic positioning system with enhanced reliability. Position and heading keeping ability meets intentions comparable to or DPS(2) and DPS(3) (depending on which failure mode being evaluated).	Includes, in addition to the properties of qualifier E, fire resistant separation between redundancy groups, which in addition is watertight below main deck.
	A	Annual survey to be carried out in accordance with scope for renewal survey.	In combination with qualifiers AUTR, AUTRO, E, ER

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
DPS Mandatory: No Design requirements: Pt.6 Ch.3 Sec.1 FiS survey requirements: Pt.7 Ch.1 Sec.6	1	Dynamic positioning system with no redundancy corresponding to IMO guideline IMO MSC/Circ.645 "Guidelines for vessels with dynamic positioning systems" DP equipment class 1.	Includes single DP control system, single joystick control system and manual levers control back-up.
	2	Dynamic positioning system with redundancy in technical design corresponding to IMO guideline IMO MSC/Circ.645 "Guidelines for vessels with dynamic positioning systems" DP equipment class 2.	Includes redundant DP control system, single joystick control system and manual levers control back-up.
	3	Dynamic positioning system with redundancy and separation in technical design corresponding to IMO guideline IMO MSC/Circ.645 "Guidelines for vessels with dynamic positioning systems" DP equipment class 3.	Includes redundant DP control system, single joystick control system and manual levers control back-up. In addition a single DP control system in a separated back-up control space.
	A	Annual survey to be carried out in accordance with scope for renewal survey.	In combination with qualifiers 2, 3,
NAUT Mandatory: No Design requirements: Pt.6 Ch.3 FiS survey requirements: Pt.7 Ch.1 Sec.6	NAV	Requirements within bridge design, bridge instrumentation and workstation arrangements. Vessels with NAUT will comply with the principles and aims of SOLAS V/15 and IMO MSC/Circ.982.	Basic requirements.
	OC		Enhanced requirements for vessels operating world wide.
	AW		Enhanced requirements for vessels operating in coastal and narrow waters.
	OSV		Vessels operating as service vessels for offshore industry
	ICS	Enhanced multi functional workstation arrangement for network based navigational systems.	Vessels with Class Notation NAUT

5 Cargo operations

Table 5 Additional class notations related to cargo operations

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Bow loading Mandatory: Yes Design requirements: Pt.6 Ch.4 Sec.1 FiS survey requirements: Pt.7 Ch.1 Sec.2,	<None>	Bow loading arrangement	Mandatory for Tanker for oil when installed
CCO Mandatory: No Design requirements: Pt.6 Ch.4 Sec.2 FiS survey requirements: Pt.7 Ch.1 Sec.4	<None>	Centralised cargo control for liquid cargoes	For vessels with Class Notation Tanker for oil , or Tanker for oil products , or Tanker for chemicals
EL Mandatory: No Design requirements: Pt.6 Ch.4 Sec.3 FiS survey requirements: Pt.7 Ch.1 Sec.6	<None>	Easy loading of cargo holds	Ore carrier
ETC Mandatory: No Design requirements: Pt.6 Ch.4 Sec.4 FiS survey requirements: NA	<None>	Effective tank cleaning	
MCDK Mandatory: No Design requirements: Pt.6 Ch.4 Sec.5 FiS survey requirements: Pt.7 Ch.1 Sec.2,	<None>	Movable car decks	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
LCS Mandatory: Yes Design requirements: Pt.6 Ch.4 Sec.7 FIS survey requirements: Pt.7 Ch.1 Sec.6	<None>	Loading computer system	Mandatory if a loading computer calculating stability and/or hull strength is installed
	DC	Loading computer system to assist the master as a decision aid under damage conditions	Optional
REGAS Mandatory: No Design requirements: Pt.6 Ch.4 Sec.8 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Regasification plant	
RCP Mandatory: No Design requirements: Pt.6 Ch.4 Sec.9 FIS survey requirements: Pt.7 Ch.1 Sec.6	X/Y	Refrigerated container stowage positions, where X represents total number of certified refrigerated stowage positions, and Y is the percentage of refrigerated containers carrying fruit/chilled cargoes. Y shall be at least 20%.	
RM Mandatory: No Design requirements: Pt.6 Ch.4 Sec.10 FIS survey requirements: Pt.7 Ch.1 Sec.6	X°C/Y°C sea	Cargo refrigeration plant, where X°C is lowest chamber temperature and Y °C sea maximum seawater temperature	
RSCS Mandatory: No Design requirements: Pt.6 Ch.4 Sec.11 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Route specific container stowage	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
STL Mandatory: Yes Design requirements: Pt.6 Ch.4 Sec.1 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , and Pt.7 Ch.1 Sec.4	<None>	Submerged turret loading system	Mandatory when installed
VCS Mandatory: No Design requirements: Pt.6 Ch.4 Sec.12 FiS survey requirements: Pt.7 Ch.1 Sec.6 ,	1	Systems for control of vapour emission from cargo tanks and in compliance with IMO MSC/Circ. 585	For vessels with Class Notation Tanker for oil , or Tanker for oil products , or Tanker for chemicals
	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 onboard vapour processing with a minimum recovery rate of 78% of non-methane VOC	
	B	Additional requirements to vapour balancing.	For vessels with Class Notation VCS(1) , or VSC(2)

6 Equipment and design features

Table 6 Additional class notations related to equipment and design features

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Container Mandatory: No Design requirements: Pt.6 Ch.5 Sec.1 FiS survey requirements: Pt.7 Ch.1 Sec.4	<None>	Equipped for carriage of containers	For vessels other than Container ship
Hatchcoverless Mandatory: No Design requirements: Pt.6 Ch.5 Sec.2 FiS survey requirements: Pt.7 Ch.1 Sec.2, Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	<None>	For hatchcoverless container ships equipped with the appropriate facilities	Container ship
Crane Mandatory: No Design requirements: Pt.6 Ch.5 Sec.3 FiS survey requirements: Pt.7 Ch.1 Sec.6	<None>	On board crane	Onboard crane certified by DNV GL
F Mandatory: No Design requirements: Pt.6 Ch.5 Sec.4 FiS survey requirements: Pt.7 Ch.1 Sec.6,	A	Additional fire protection in accommodation area	
	C	Additional fire protection in cargo area	
	M	Additional fire protection in machinery space	
HELDK Mandatory: No Design requirements: Pt.6 Ch.5 Sec.5 FiS survey requirements: Pt.7 Ch.1 Sec.6,	<None>	Helicopter deck	
	S	Additional requirements to vessel safety	
	H	Additional requirements to helicopter safety	
	F	Additional requirements to helicopter facility	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
	CAA-N	Helicopter facility has been evaluated for additional requirements specified by the Norwegian Civil Aviation Authorities	
SF Mandatory: No Design requirements: Pt.6 Ch.5 Sec.6 FiS survey requirements: NA	<None>	Compliance with requirements to damage stability	Offshore service vessel
SPS Mandatory: No Design requirements: Pt.6 Ch.5 Sec.7 FiS survey requirements: Pt.7 Ch.1 Sec.6,	<None>	Ships carrying special personnel who are neither crew members nor passengers	
Inert Mandatory: Yes Design requirements: Pt.6 Ch.5 Sec.8 FiS survey requirements: Pt.7 Ch.1 Sec.2, and Pt.7 Ch.1 Sec.4	<None>	Inert gas system	Mandatory if installed on Tanker for oil DWT< 20 000 ton
LFL Mandatory: No Design requirements: Pt.6 Ch.5 Sec.9 FiS survey requirements: NA	1	Designed for carriage of liquid with flashpoint lower than 60°C	All ships except Tanker for oil and Tanker for chemicals
	2	Designed for carriage of liquid with flashpoint lower than 43°C	
DG Mandatory: No Design requirements: Pt.6 Ch.5 Sec.10 FiS survey requirements: Pt.7 Ch.1 Sec.6,	<None>	Arranged for carriage of solid dangerous goods in bulk and packaged form in compliance with SOLAS Reg.II-2/19	
	B	Arranged for carriage of solid dangerous goods in bulk in compliance with SOLAS Reg.II-2/19	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
	P	Arranged for carriage of dangerous goods in packaged form in compliance with SOLAS Reg.II-2/19	
DBC Mandatory: No Design requirements: Pt.6 Ch.5 Sec.10 FiS survey requirements: Pt.7 Ch.1 Sec.6,	<None>	Arranged for carriage of solid dangerous goods in bulk in compliance with the technical provisions of the IMSBC Code	
OILREC Mandatory: No Design requirements: Pt.6 Ch.5 Sec.11 FiS survey requirements: Pt.7 Ch.1 Sec.6,	<None>	Recovered oil reception and transportation	All ships except Tanker for oil
SPM Mandatory: Yes Design requirements: Pt.6 Ch.5 Sec.12 FiS survey requirements: NA	<None>	Single point mooring	Mandatory for Tanker for oil when installed
ESV Mandatory: No Design requirements: Pt.6 Ch.5 Sec.13 FiS survey requirements: Pt.7 Ch.1 Sec.6	DP	Enhanced verification of dynamic positioning	
	TAM	Enhanced verification of thruster assisted mooring or automatic thruster assisted mooring systems	
	PMS	Enhanced verification of power management system	
	SPT	Enhanced verification of steering, propulsion and thruster system	
	ICS	Enhanced verification of integrated control and monitoring system	
	DRILL	Enhanced verification of drilling control system	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
	BOP	Enhanced verification of blow out prevention system	
	CRANE	Enhanced verification of crane control system	
	HIL-IS	"Hardware-In-the-Loop" (HIL) Testing where HIL test package is provided by independent HIL supplier	
	HIL-DS	"Hardware-In-the-Loop" (HIL) Testing where HIL test program package and HIL test package report are provided by independent HIL supplier and HIL test simulator package is provided by the organization delivering the HIL target system.	
Gas bunker Mandatory: No Design requirements: Pt.6 Ch.5 Sec.14 FiS survey requirements: NA	<None>	Equipped with dedicated gas fuel transfer equipment for supply of bunker to gas fuelled ships on a regular basis.	Tanker for liquefied gas or Tanker for c and barges specifically intended for carriage of liquefied gas
	VR-x	Equipped for handling of excess vapour return from the receiving ship with vapour recovery capacity of x kW.	
	EPC	Equipped with enhanced positioning control system.	
	TC	Equipped with enhanced transfer control system.	
CHEM Mandatory: No Design requirements: Pt.6 Ch.5 Sec.15 FiS survey requirements: NA	<None>	Carriage of toxic chemicals, in accordance with IBC code, section 15.12, to and from mobile offshore drilling units, fixed and floating platforms and other similar offshore installations	Offshore service vessel

7 Cold climate

Table 7 Additional class notations related to cold climate

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Ice Mandatory: No Design requirements: Pt.6 Ch.6 Sec.1 and Pt.6 Ch.6 Sec.2 FIS survey requirements: NA	1A*F	High powered vessels for regular traffic in heavy Baltic ice.	Vessels constructed according to Finnish-Swedish ice rules.
	1A*	Vessels intended for navigation in ice-infested waters	Constructed according to Finnish- Swedish ice rules (1A Super). Ice thickness 1.0 m
	1A	Vessels intended for navigation in ice-infested waters	Constructed according to Finnish- Swedish ice rules (1A). Ice thickness 0.8 m.
	1B	Vessels intended for navigation in ice-infested waters	Constructed according to Finnish- Swedish ice rules (1B). Ice thickness 0.6 m
	1C	Vessels intended for navigation in ice-infested waters	Constructed according to Finnish- Swedish ice rules (1C). Ice thickness 0.4 m
	C	Vessels intended for navigation in light ice conditions	
	E	Vessels intended for navigation in light localised drift ice	
PC Mandatory: No Design requirements: Pt.6 Ch.6 Sec.5 FIS survey requirements: NA	1	Vessels intended for navigation in ice-infested polar waters.	Year-round operation in all Polar waters
	2	Vessels intended for navigation in ice-infested polar waters	Year-round operation in moderate multi-year ice conditions
	3	Vessels intended for navigation in ice-infested polar waters	Year-round operation in second-year ice which may include multi-year ice inclusions
	4	Vessels intended for navigation in ice-infested polar waters	Year-round operation in thick first-year ice which may include old ice inclusions
	5	Vessels intended for navigation in ice-infested polar waters	Year-round operation in medium first-year ice which may include old ice inclusions

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
	6	Vessels intended for navigation in ice-infested polar waters	Summer/autumn operation in medium first-year ice which may include old ice inclusions
	7	Vessels intended for navigation in ice-infested polar waters	Summer/autumn operation in thin first-year ice which may include old ice inclusions
Winterized Mandatory: No Design requirements: Pt.6 Ch.6 Sec.3 FiS survey requirements: Pt.7 Ch.1 Sec.6,	Basic	Occasional operation in cold climate for short periods	
	Cold	Regular operation in cold climate or for an extended period of time	
	Polar	Operation in extreme cold climate of the polar regions year-round	
	t_d	Design temperature	
	Enhanced	Additional requirements of a higher level of winterization	
DAT Mandatory: No Design requirements: Pt.6 Ch.6 Sec.4 FiS survey requirements: NA	t	Design ambient air temperature suitable for regular service during winter to polar waters, where t denotes the lowest design ambient temperature in °C	

8 Environmental protection and pollution control

Table 8 Additional class notations related to environmental protection and pollution control

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
BWM Mandatory: No Design requirements: Pt.6 Ch.7 Sec.1 FIS survey requirements: Pt.7 Ch.1 Sec.6	E[m]	Ballast water exchange.	m denotes method of exchange as follows: s - sequential method f - flow-through method d - dilution method
	T	Ballast water treatment	
Clean Mandatory: No Design requirements: SHIP Pt.6 Ch.7 Sec.2 FIS survey requirements: SHIP Pt.7 Ch.1 Sec.6	<None>	Arrangements for controlling and limiting operational emissions and discharges	
	Design	Additional design requirements for protection against accidents and for limiting their consequences	
	Tier III	Compliance with the NOx emission requirements of Tier III according to MARPOL Annex VI, Regulation 13.	
ECA Mandatory: No Design requirements: Pt.6 Ch.7 Sec.3 FIS survey requirements: NA	SOx-A	designed to operate all machinery on marine distillate fuel.	Fuel and Lubrication Oil System and Arrangements for meeting Regulations in Emission Control Areas.
	SOx-P	Designed to operate machinery components used while in port on marine distillate fuel.	
Recyclable Mandatory: No Design requirements: Pt.6 Ch.7 Sec.4 FIS survey requirements: Pt.7 Ch.1 Sec.6	<None>	Inventory of Hazardous Materials	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
Shore power Mandatory: No Design requirements: Pt.6 Ch.7 Sec.5 FiS survey requirements: NA	<None>	Electric shore connections	
Silent Mandatory: No Design requirements: Pt.6 Ch.7 Sec.6 FiS survey requirements: Pt.7 Ch.1 Sec.6	A	Vessels complying with specified maximum underwater noise emission	Vessels using acoustical equipment
	S		Vessels conducting seismic surveys
	F		Fishing vessel
	R		Research vessel
	E		Vessels demonstrating a controlled environmental noise emission

9 Living and working conditions

Table 9 Additional class notations related to living and working conditions

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
COMF Mandatory: No Design requirements: Pt.6 Ch.8 Sec.1 FiS survey requirements: NA	C-crn	Vessels designed for enhanced comfort by improved indoor climate. crn denotes comfort rating number	
	V-crn	Vessels designed for enhanced comfort by reducing noise and vibration. crn denotes comfort rating number	
VIBR Mandatory: No Design requirements: Pt.6 Ch.8 Sec.2 FiS survey requirements: Pt.7 Ch.1 Sec.6	<None>	Limitations to vibration levels	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
SAFELASH Mandatory: No Design requirements: Pt.6 Ch.8 Sec.3 FiS survey requirements: NA	<None>	Increased safety level for crew members and stevedores engaged in the handling and securing of containers.	Container ships and vessels assigned the additional Class Notation Container

10 Survey arrangements

Table 10 Additional class notations related to survey arrangement

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
BIS Mandatory: No Design requirements: Pt.6 Ch.9 Sec.1 FiS survey requirements: Pt.7 Ch.1 Sec.6	<None>	Built for in-water survey of the vessel bottom and related items	
ESP Mandatory: Yes Design requirements: Pt.6 Ch.9 Sec.2 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 , Pt.7 Ch.1 Sec.4 and Pt.7 Ch.1 Sec.5	<None>	Vessels subject to an enhanced survey programme	Mandatory for vessels with Class Notations: Bulk carrier Tanker for oil Bulk carrier or tanker for oil and Tanker for chemicals Tanker for c having integral tanks intended for carriage of liquid chemicals in bulk in accordance with the IBC Code
HLP Mandatory: No Design requirements: Pt.6 Ch.9 Sec.3 FiS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	<None>	Hull life cycle programme	

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
HMON Mandatory: No Design requirements: Pt.6 Ch.9 Sec.4 FIS survey requirements: Pt.7 Ch.1 Sec.6	An	Hull monitoring at various locations to reduce the need for internal survey through increased focus on hull stress warnings. n denotes number of sensors	Sensor monitoring acceleration along one axis
	Bn		Statistical back-up and triggered time series to be sent annually to the Society
	Cn		Online link to loading computer which is continuously up-dating the loading condition
	Dn		Online data link between hull monitoring system on board to office ashore. The link shall make it possible to operate the system from an onshore computer, perform maintenance and transfer data
	En		Sensor monitoring the propulsion shaft(s) output/ rpm
	Gn		Sensor monitoring global hull strain
	Hn		Sensor monitoring the liquid motion pressures in tanks (sloshing)
	Ln		Sensor monitoring local hull strain
	Mn		Device for monitoring of hull rigid body motions (six degrees of freedom)
	On		Navigation sensors (position fixing system (e.g. GPS), speed log, gyro compass, rudder angle, etc.)
	Pn		Sensor monitoring the sea pressure acting on the hull
	Sn		Device for monitoring the sea-state
	Tn		Sensor monitoring the temperature
Wn	Wind sensor for wind speed and wind heading		

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
TMON Mandatory: No Design requirements: Pt.6 Ch.9 Sec.5 FiS survey requirements: Pt.7 Ch.1 Sec.6	<None>	Tailshaft monitoring enables operators to continuously observe and assess the condition of the shaft(s) which may extend interval between tailshaft surveys/ tail-shaft withdrawal	Oil lubricated tail-shaft stern tube bearing
	Closed loop water		Water lubricated tail-shaft stern tube bearing with closed loop
	Open loop water		Water lubricated tail-shaft stern tube bearing with open loop
BMON Mandatory: No Design requirements: Pt.6 Ch.9 Sec.6 FiS survey requirements: Pt.7 Ch.1 Sec.6	<None>	Boiler monitoring reduces the need for internal survey at every alternate survey through increased focus on water management	

11 Naval

Table 11 Additional class notations related to naval vessels

<i>Class Notation</i>	<i>Qualifier</i>	<i>Purpose</i>	<i>Application</i>
NAUT Mandatory: No Design requirements: Pt.6 Ch.10 Sec.1 FIS survey requirements: Pt.7 Ch.1 Sec.6	Navy	Basic requirements to bridge design, bridge instrumentation, and workstation arrangement	All naval flagged vessels and administered by a national naval administration, except: <ul style="list-style-type: none"> — Vessel of less than 24 meters L_{OA} — Submarines
Naval support Mandatory: Yes Design requirements: Pt.5 Ch.13 Sec.3 FIS survey requirements: Pt.7 Ch.1 Sec.2 , Pt.7 Ch.1 Sec.3 and Pt.7 Ch.1 Sec.4	<None>	Naval operations and Naval support operations	Naval flagged vessels and administered by a national naval administration
	Hull	Naval requirements for arrangements, loads and hull strength	
	STAB	Naval requirements for stability	
	System	Naval requirements for piping, machinery, electrical, control and monitoring	
	Fire	Naval requirements for fire safety	
	EVAC	Naval requirements for safe evacuation	
	RADHAZ	Naval requirements for radiation hazards	
	EMC	Naval requirements for electromagnetic compatibility	
	SAM	Naval requirements for storage rooms for ammunition	

11.1 General

11.1.1 The Class Notation **Naval support** may be combined with ship type notations in [Pt.5](#).

11.1.2 The qualifiers to **Naval support** are optional

11.1.3 Any combination of qualifiers for **Naval support** are allowed. For example **Naval support(Hull, STAB, Fire)**

SECTION 5 SERVICE AREA

1 Service area notation

1.1 General

1.1.1 The service area notation **R** followed by a number or a letter will be assigned to vessels with modified requirements to arrangement, equipment or scantlings, in relation to vessels 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 1](#) of this section. 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 1 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		

1.1.2 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.

1.1.3 The flag administration, the domestic requirements of which are being applied under the provision of [Ch.1 Sec.2 \[1.3.5\]](#) (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 administration be Norway or **R2 (usa)** should the flag administration be U.S.A. etc.).

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



CHANGES – HISTORIC

October 2015 edition

General

This is a new document.

The rules enter into force 1 January 2016.

DNV GL

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