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# **RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

**RULES**

**Part S**

**Ships Carrying Dangerous Chemicals  
in Bulk**

**2023 AMENDMENT NO.1**

Rule No.29      30 June 2023

Resolved by Technical Committee on 25 January 2023

An asterisk (\*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

Rule No.29 30 June 2023

## AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

“Rules for the survey and construction of steel ships” has been partly amended as follows:

### **Part S SHIPS CARRYING DANGEROUS CHEMICALS IN BULK**

#### Amendment 1-1

#### **Chapter 6 MATERIALS OF CONSTRUCTION**

##### **6.1 General**

Paragraph 6.1.3 has been amended as follows.

##### **6.1.3 Information for Materials of Construction (IBC Code 6.2)\***

Compatibility information for materials of construction is to be ~~indicated in the operation manual specified in 16.1.1~~ provided and available to the ship operator and/or master.

#### **Chapter 8 CARGO TANK VENTING AND GAS-FREEING ARRANGEMENTS**

##### **8.1 Cargo Tank Venting (IBC Code 8.2)**

Paragraph 8.1.6 has been amended as follows.

##### **8.1.6 Information for the Master (IBC Code 8.2.6)**

Information ~~related to for the Master about~~ the maximum permissible loading and unloading rates for each tank or group of tanks consistent with design of the venting systems ~~are is~~ to be included in the Operation Manual stipulated in ~~16.1.1~~ provided to the ship's master.

#### **Chapter 16 OPERATIONAL REQUIREMENTS**

Section 16.1 has been deleted.

##### ~~16.1 Maximum Allowable Quantity of Cargo per Tank~~

##### ~~16.1.1 Operation Manual~~

~~Operation manual approved by the Society is to be provided on board. Operation manual is to be included the items mentioned in 16.2.~~

## FFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 30 June 2023.

## Chapter 1 GENERAL

### 1.1 General

#### 1.1.1 Application\*

Sub-paragraphs -3(2) and (3) have been amended as follows.

**3** Hull, machinery and equipment of a ship intended to carry dangerous chemicals are to comply with the followings in addition to those of this Part.

- (1) For ships having double hull structure and length of 150 m or above intended for the carrying a cargo or part cargo of oil in bulk: **Part CSR-B&T**  
In this case, “length of ship” is as defined in **1.1.2-5(1) of Part A**.
- (2) For ships intended for the carriage of liquid cargoes in tanks integrated to their hull structures, except ships defined in (1): ~~Chapter 29, Part 2-7, Part C~~
- (3) For ships intended for the carriage of flammable liquid: ~~29.1.2 and 29.12.4, Part C 2.1.1 and 14.2, Part 2-7 and Chapter 14, Part D~~

## Chapter 4 CARGO CONTAINMENT

### 4.2 Design and Construction

#### 4.2.2 Gravity Tank

Sub-paragraphs -1 and -2 have been amended as follows.

**1** The scantlings of the members of cargo tank are, in general, to be in accordance with the applicable provisions of ~~Chapter 14 and 29~~ **Part 2-7 and Part 2-9, Part C** prescribed for cargo tank construction of oil tanker, considering the loads and stress provided in **4.2.1(1)**.

**2** Weldings of gravity tanks are to be in accordance with provisions of ~~29.13, Part C~~ **Chapter 12, Part 2-7**, where  $F3$  in ~~Table C29.20~~ **Table C12.1.2-1, Part 2-7, Part C** to be altered as  $F2$ .

### EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 July 2023.
2. Notwithstanding the amendments to the Rules, the current requirements apply to the following ships:
  - (1) ships for which the date of contract for construction is before the effective date; or
  - (2) sister ships of ships subject to the current requirements for which the date of contract for construction is before 1 January 2025.

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# **GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

**Part S**

**Ships Carrying Dangerous Chemicals  
in Bulk**

**GUIDANCE**

**2023 AMENDMENT NO.1**

Notice No.28      30 June 2023

Resolved by Technical Committee on 25 January 2023

Notice No.28 30 June 2023

## AMENDMENT TO THE GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

“Guidance for the survey and construction of steel ships” has been partly amended as follows:

### **Part S SHIPS CARRYING DANGEROUS CHEMICALS IN BULK**

#### Amendment 1-1

### **S5 CARGO TRANSFER**

#### **S5.6 Cargo Transfer Control Systems**

##### **S5.6.1 General**

Sub-paragraph -5 has been amended as follows.

**5** In addition to the preceding -4, a stop valve is required for the hose connection to the shore vapour circulation. When the stop valve is of the portable type for fitting as necessary, stop valves equal to or greater, in number, than the maximum number of tanks scheduled for simultaneous loading of the cargo requiring shore circulation are to be provided at shore for the ship. The restriction to the number of loaded cargo tanks according to the number of these stop valves is to be ~~noted in the Operation Manual of the ship carrying dangerous chemicals in bulk~~ provided to the ship’s master.

### **S8 CARGO TANK VENTING AND GAS-FREEING ARRANGEMENTS**

#### **S8.2 Types of Tank Venting Systems**

##### **S8.2.2 Controlled Tank Venting System**

Sub-paragraph -2 has been amended as follows.

**2** The wording “certain operating conditions”, which may be allowed bypassing a pressure/vacuum valve, referred to in **8.2.2, Part S of the Rules** means the cargo operating conditions which the cargo is not required a vapour return system during cargo operation in **Chapter 15, Part S of the Rules**, provided that the vent-line outlet is complied with the requirements specified in **8.2.4 and 8.2.6, Part S of the Rules**. However bypassing of high-velocity valves is not permitted, and the bypassing a pressure/vacuum valves is not permitted during cargo operations for cargoes requiring vapour return systems in accordance with **Chapter 15, Part S of the Rules**.

## S16 OPERATIONAL REQUIREMENTS

### S16.2 Operational Requirements

Paragraph S16.2.3 has been deleted.

#### ~~S16.2.3 Cargo Information~~

~~In relation to the requirement specified in 16.2.3-3(5), Part S of the Rules, the description of bypassing a pressure/vacuum valve is not allowed during cargo operation which the cargo is required a vapour return system in accordance with Chapter 15, Part S of the Rules, is to be noted in the operation manual. (see S8.2.2-2)~~

#### FFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 30 June 2023.

## S15 SPECIAL REQUIREMENTS

### S15.11 Acids

Paragraph S15.11.2 has been amended as follows.

#### S15.11.2 Lining with Corrosion-resistant Materials

**1** “Lining” is an acid-resistant material that is applied to the tank or piping system in a solid state ~~with a defined elasticity property (i.e. not sprayed on).~~

**2** The wording “elasticity of the lining is not to be less than that of the supporting boundary plating” in 15.11.2, Part S of the Rules, means to the prevention of debonding at the interfaces between linings and lined surfaces.

**3** The use of lining with corrosion-resistant materials is to be applied also to the casing walls of cargo pump room (the bottom and casings to a height of 1 *m* from the bottom).

### EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 30 June 2023.
2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships for which the date of contract for construction\* is before 1 January 2023.  
\*“contract for construction” is defined in the latest version of IACS Procedural Requirement(PR) No.29.

#### IACS PR No.29 (Rev.0, July 2009)

1. The date of “contract for construction” of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.
2. The date of “contract for construction” of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder. For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a “series of vessels” if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided:
  - (1) such alterations do not affect matters related to classification, or
  - (2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval.  
The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed.
3. If a contract for construction is later amended to include additional vessels or additional options, the date of “contract for construction” for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a “new contract” to which 1. and 2. above apply.
4. If a contract for construction is amended to change the ship type, the date of “contract for construction” of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

Note:

This Procedural Requirement applies from 1 July 2009.

## **S2 SHIP SURVIVAL CAPABILITY AND LOCATION OF CARGO TANKS**

### **S2.7 Flooding Assumptions**

#### **S2.7.8 Buoyancy of Superstructure**

Sub-paragraph -2 has been amended as follows.

**2** In **2.7.8(2), Part S of the Rules**, the remotely operated sliding watertight doors are to satisfy the requirements of ~~13.3~~, **2.2.2, Part 1, Part C of the Rules**, unless otherwise specified in this chapter and to be capable of being controlled from a safe and readily accessible place. Watertight openings submerge in water under the minimum range of residual stability are to be capable of closing securely in a state of equilibrium.

### **S2.9 Survival Requirements**

#### **S2.9.2 Stability Criteria at Any Stage of Flooding**

Sub-paragraph -1 has been amended as follows.

**1** The “watertight sliding doors” referred to in **2.9.2(1), Part S of the Rules** means such doors satisfying the requirements of ~~13.3~~, **2.2.2, Part 1, Part C of the Rules**, unless otherwise specified in this chapter.

#### **S2.9.3 Stability Criteria at Final Equilibrium after Flooding**

Sub-paragraph -3 has been amended as follows.

**3** In applying the requirements of **2.9.3(1), Part S of the Rules**, “other openings capable of being closed weathertight” do not include ventilators provided with weathertight closing appliances in accordance with the requirements of ~~23.6.5-2~~, **14.12.3.1-3, Part 1, Part C of the Rules or 21.6.5-2, Part CS of the Rules** that for operational reasons have to remain open to supply air to the engine room or emergency generator room (if the same is considered buoyant in the stability calculation or protecting openings leading below) for the effective operation of the ship.

## S4 CARGO CONTAINMENT

### S4.2 Design and Construction

Paragraph S4.2.1 has been amended as follows.

#### S4.2.1 General

In ~~“dynamic load by ship motion at sea” in 4.2.1(1)(e)~~ applying **4.2.1(2), Part S of the Rules**, the following are to be satisfied.

- (1) For ships subject to **Part C of the Rules, 10.9, Part1, Part C of the Rules** is to be satisfied.
- (2) For ships subject to **Part CS of the Rules**, when cargo is half loaded in a range from 20 to 80% of loading ratio in cargo tanks, the structural strength is to be determined in consideration of the effects of sloshing. However, in case where the length of tanks is not more than 10 *m* or 10% of the ship's length for freeboard ( $L_f$ ), whichever is the greater, no consideration may be taken for sloshing effects.

#### EFFECTIVE DATE AND APPLICATION (Amendment 1-3)

1. The effective date of the amendments is 1 July 2023.
2. Notwithstanding the amendments to the Guidance, the current requirements apply to the following ships:
  - (1) ships for which the date of contract for construction is before the effective date; or
  - (2) sister ships of ships subject to the current requirements for which the date of contract for construction is before 1 January 2025.