

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

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

## **Part B**

## **Class Surveys**

**Rules for the Survey and Construction of Steel Ships**

**Part B**

**2007**

**AMENDMENT NO.2**

**Guidance for the Survey and Construction of Steel Ships**

**Part B**

**2007**

**AMENDMENT NO.2**

Rule No.23 / Notice No.27      2nd May 2007

Resolved by Technical Committee on 2nd March 2007

Approved by Board of Directors on 27th March 2007

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

## **Part B      Class Surveys**

### **2007      AMENDMENT NO.2**

Rule No.23      2nd May 2007

Resolved by Technical Committee on 2nd March 2007

Approved by Board of Directors on 27th March 2007

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 B      Class Surveys**

### **Amendment 2-1**

## **Chapter 2   CLASSIFICATION SURVEY**

### **2.1      Classification Survey during Construction**

#### **2.1.2      Submission of Plans and Documents for Approval**

Sub-paragraph -11 has been newly added as follows.

- 1** When it is intended to build a ship to the classification with the Society, the following plans and documents are to be submitted for the approval by the Society before the work is commenced. Plan and documents may be subject to examination by the Society prior to the submission of an application for the classification of the ship in accordance with the requirements stipulated otherwise by the Society.

(snip)

- 10** For ships to be provided with the operating and maintenance manual for the door and inner door in accordance with the requirements of **23.3.10-1** and **23.4.9-1, Part C** or **21.3.10-1** and **21.4.9-1, Part CS**, the operating and maintenance manual is to be submitted for approval by the Society.
- 11** For ships subject to **Part CSR-T** and **CSR-B**, the Coating Technical File is to be submitted for reviewed by the Society.

#### **2.1.6      Documents to be maintained on board**

Sub-paragraph -1.(1)(l) has been newly added as follows.

- 1** At the completion of a classification survey, the Surveyor confirms that the following drawings, plans, manuals, lists, etc., as applicable, of finished version are on board.
  - (1) Documents approved by the Society or their copies
    - (a) Operating and maintenance manuals for the door and inner door (**23.3.10** and **23.4.9, Part C** or **21.3.10** and **21.4.9, Part CS**)
  - (snip)
  - (k) Programs for the examination and testing for membrane and semi-membrane tanks and internal insulation tanks (Note (\*1) to **Table B5.27**)
  - (l) Coating Technical File (**1.2.2 Section 5 Chapter 3, Part CSR-B** and **2.1.1.2**

## **Section 6, Part CSR-T)**

Paragraph 2.1.8 has been newly added as follows.

### **2.1.8 Verification of Coating Application**

The following will be carried out by the Society prior to reviewing the Coating Technical File for the coatings of internal spaces subject to 1.2.2 Section 5 Chapter 3, Part CSR-B and 2.1.1.2 Section 6, Part CSR-T:

- (1) Check that the Technical Data Sheet and Statement of Compliance or Type Approval Certificate comply with *IMO Performance Standard for Protective Coatings*, however, the Statement of Compliance or Type Approval Certificate is to be a certificate deemed appropriate by the Society;
- (2) Check that the coating identification on representative containers is consistent with the coating identified in the Technical Data Sheet and Statement of Compliance or Type Approval Certificate in -1 above;
- (3) Check that the inspector is qualified in accordance with the qualification standards deemed appropriate by the Society;
- (4) Check that the inspector's reports of surface preparation and the coating's application indicate compliance with the manufacturer's Technical Data Sheet and Statement of Compliance or Type Approval Certificate in -1 above; and
- (5) Monitor implementation of the coating inspection requirements deemed appropriate by the Society.

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

- 1.** The effective date of the amendments is 8 December 2006.
- 2.** Notwithstanding the amendments to the Rules, the current requirements may apply to ships for which the date of contract for construction\* is before the effective date.  
\* "contract for construction" is defined in IACS Procedural Requirement (PR) No.29 (Rev.3).

### **IACS PR No.29 (Rev.3)**

Unless specified otherwise:

- 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 sister 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, a "series of sister vessels" is a series of vessels built to the same approved plans for classification purposes, under a single contract for construction. The optional vessels will be considered part of the same series of sister 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.

Notes:

- 1.** This Procedural Requirement applies to all IACS Members and Associates.
- 2.** This Procedural Requirement is effective for ships "contracted for construction" on or after 1 January 2005.
- 3.** Sister vessels may have minor design alterations provided such alterations do not affect matters related to classification.
- 4.** Revision 2 of this Procedural Requirement is effective for ships "contracted for construction" on or after 1 April 2006.
- 5.** Revision 3 of this Procedural Requirement was approved on 5 January 2007 with immediate effect.

## Chapter 3 ANNUAL SURVEYS

### 3.2 Annual Surveys for Hull, Equipment, Fire Extinction and Fittings

#### 3.2.3 Performance Test

Table B3.3 has been amended as follows.

**Table B3.3 Performance Tests**

Items	Tests
1 Weathertight hatch covers	<ul style="list-style-type: none"> <li>• Hose test listed in <b>Table B2.1</b> (when deemed necessary by the Surveyor)</li> <li>• Random checking of the satisfactory operation of mechanically operated hatch covers</li> </ul>
2 Closing appliances of watertight door on watertight bulkheads and openings on superstructure end bulkheads	<ul style="list-style-type: none"> <li>• Checking whether the appliances work in good order is to be made as deemed necessary by the Surveyor.</li> </ul>
3 Appliances related to fire protection and escape	<ul style="list-style-type: none"> <li>• Checking whether the appliances work in good order is to be carried out.</li> </ul>
4 Fire detection system and fire alarm system including manually operated call points	<ul style="list-style-type: none"> <li>• Checking whether the systems work in good order, including failure alarm of the system, is to be made.</li> </ul>
5 Fire pumps including emergency fire pump, pipings, hydrants, hoses, nozzles etc.	<ul style="list-style-type: none"> <li>• Performance test of the fire fighting system composed of fire pump, hydrants, etc. is to be carried out. For ships having operating system for periodically unattended machinery space, operation test of remote control system or automatic operation system of one pump is to be carried out.</li> </ul>
6 Fixed deck foam system	<ul style="list-style-type: none"> <li>• Checking whether the system works in good order is to be carried out by delivering water.</li> </ul>
7 Ventilation system	<ul style="list-style-type: none"> <li>• Checking whether fans work in good order is to be carried out.</li> </ul>
8 Stability Computer	<ul style="list-style-type: none"> <li>• For computers for stability calculation as a supplement to the stability information booklet, which is on board ships contracted for construction on or after 1 July 2005, a performance test is to be carried out.</li> </ul>
9. Water level detection and alarm systems <sup>(1)</sup>	<ul style="list-style-type: none"> <li>• Checking, at random, whether the systems work in order is to be made.</li> </ul>
10. Dewatering arrangements <sup>(2)</sup>	<ul style="list-style-type: none"> <li>• Checking whether the systems work in order is to be made.</li> </ul>

Notes)

(1) ~~Water level detection and alarm systems specified in 13.8.5, Part D of the Rules~~

(2) ~~Dewatering arrangements specified in 13.5.10, Part D of the Rules~~

## Chapter 5 SPECIAL SURVEYS

### 5.2 Special Surveys for Hull, Equipment, Fire extinction and Fittings

#### 5.2.3 Performance Test

Sub-paragraph (5) has been amended as follows.

- 2 In addition to the above **-1**, performance tests and operation tests are to be carried out in specified through **(1)** to **(5)** below.
- (1) Operation test for all mechanically operated hatch covers specified in item 1 in **Table B4.1**
  - (2) Hose test listed in **Table 2.1** or equivalent, for all weathertight hatch covers
  - (3) Performance test and operation test for all bilge and ballast piping system
  - (4) For oil tankers and ships carrying dangerous chemical in bulk, performance test and operation test of cargo and ballast piping systems within all cargo tanks, all tanks and spaces bounding cargo tanks such as ballast tanks, pump rooms, pipe tunnels, cofferdams and void spaces and on weather deck
  - (5) Performance test listed in item 1 in **Table B4.1**, for all water level detection and alarm systems ~~specified in 13.8.5, Part D of the Rules.~~

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

1. The effective date of the amendments is 1 July 2007.
2. Notwithstanding the amendments to the Rules, the current requirements may apply to the surveys for which the application is submitted to the Society before the effective date.

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

## **Part B      Class Surveys**

**GUIDANCE**

**2007      AMENDMENT NO.2**

Notice No.27      2nd May 2007

Resolved by Technical Committee on 2nd March 2007

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 B Class Surveys**

### **Amendment 2-1**

## **B2 CLASSIFICATION SURVEY**

### **B2.1 Classification Survey during Construction**

#### **B2.1.2 Submission of Plans and Documents for Approval**

Sub-paragraph -7 has been newly added as follows.

- 1 Undermentioned plans required to be submitted for approval in **2.1.2, Part B of the Rules** are to be indicate following items;  
(snip)
- 6 The wording “in accordance with the requirements stipulated otherwise by the Society” referred to in **2.1.2-1, Part B of the Rules** means as specified below:  
Where an applicant for classification of a ship intends to get an approval on plans and documents prepared for new building or alteration work prior to submission of an application for classification and surveys of the ship, an application for prior approval of plans and documents is to be submitted to the Society.
- 7 For the coatings of internal spaces subject to **1.2.2 Section 5 Chapter 3, Part CSR-B** and **2.1.1.2 Section 6, Part CSR-T**, the Coating Technical File specified in **2.1.2-11, Part B of the Rules** must contain at least the following items:
  - (1) A copy of the Statement of Compliance or Type Approval Certificate specified in **2.1.8(1), Part B of the Rules**;
  - (2) A copy of the Technical Data Sheet specified in **2.1.8(1), Part B of the Rules**, including:
    - (a) Product name and identification mark and/or number;
    - (b) Materials, components and composition of the coating system, colours;
    - (c) Minimum and maximum dry film thickness;
    - (d) Application methods, tools and/or machines;
    - (e) Condition of surface to be coated (de-rusting grade, cleanness, profile, etc.); and
    - (f) Environmental limitations (temperature and humidity);
  - (3) Shipyard work records of coating application, including:
    - (a) Applied actual space and area (in *square metres*) of each compartment;
    - (b) Applied coating system;
    - (c) Time of coating, thickness, number of layers, etc.;
    - (d) Ambient condition during coating; and
    - (e) Method of surface preparation;



- (4) Procedures for inspection and repair of coating system during ship construction;
- (5) Coating log issued by the coating inspector, stating that the coating was applied in accordance with the specifications to the satisfaction of the coating supplier representative and specifying deviations from the specifications, see *IMO Resolution MSC.215(82) Annex 2* for an example of the daily log and non-conformity report ;
- (6) Shipyard's verified inspection report, including:
  - (a) Completion date of inspection;
  - (b) Result of inspection;
  - (c) Remarks (if given); and
  - (d) Coating inspector's signature; and
- (7) Procedures for in-service maintenance and repair of coating system.

Sub-paragraph B2.1.8 has been newly added as follows.

#### **B2.1.8 Verification of Coating Application**

- 1** The “Technical Data Sheet” stipulated in **2.1.8(1), Part B of the Rules** refers to the paint manufacturers’ Product Data Sheet which contains detailed technical instruction and information relevant to the coating and its application.
- 2** “*IMO Performance Standard for Protective Coatings*” stipulated in **2.1.8(1), Part B of the Rules** refers to *IMO Resolution MSC.215(82) “Performance standard for protective coating for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers”*
- 3** The “certificate deemed appropriate by the Society” stipulated in **2.1.8(1), Part B of the Rules** refers to one of the following **(1) to (3)**:
  - (1) The Society’s approval certificate specified in **Chapter 4, Part 4 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use**
  - (2) Statement of Compliance issued by the Research Institute of Marine Engineering, Japan (*RIME*) or MARINTEK
  - (3) Other documents approved by the Society
- 4** The “qualification standards deemed appropriate by the Society” stipulated in **2.1.8(3), Part B of the Rules** refers to the qualifications that the coating inspector is to have, at least one of which is from the following **(1) to (3)**:
  - (1) NACE Coating Inspector Level 2
  - (2) FROSIO Inspector Level III
  - (3) Equivalent qualifications approved by the Society
- 5** The “coating inspection requirements deemed appropriate by the Society” stipulated in **2.1.8(5), Part B of the Rules** refers to the requirements specified in **6, *IMO Resolution MSC.215(82)***.

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

1. The effective date of the amendments is 8 December 2006.
2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships for which the date of contract for construction\* is before the effective date.  
\* “contract for construction” is defined in IACS Procedural Requirement (PR) No.29 (Rev.3).

### IACS PR No.29 (Rev.3)

Unless specified otherwise:

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 sister 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, a “series of sister vessels” is a series of vessels built to the same approved plans for classification purposes, under a single contract for construction. The optional vessels will be considered part of the same series of sister 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.

Notes:

1. This Procedural Requirement applies to all IACS Members and Associates.
2. This Procedural Requirement is effective for ships “contracted for construction” on or after 1 January 2005.
3. Sister vessels may have minor design alterations provided such alterations do not affect matters related to classification.
4. Revision 2 of this Procedural Requirement is effective for ships “contracted for construction” on or after 1 April 2006.
5. Revision 3 of this Procedural Requirement was approved on 5 January 2007 with immediate effect.

## B3 ANNUAL SURVEYS

### B3.2.3 Performance Tests

Sub-paragraphs 5 and 6 have been newly added as follows.

- 1 Appliances specified as item No.3 in **Table B3.3, Part B of the Rules** are those specified in **5.2.2, 8.3.1-3 and 9.5.2-3, Part R of the Rules**.
- 2 With regard to details of examinations specified for item No.4, 5 and 6 in **Table B3.3, Part B of the Rules**, reference is to be made to **B2.1.4-1(3)**.
- 3 The wording “computers for stability calculation as a supplement to the stability information booklet” specified in item 8 of **Table B3.3, Part B of the Rules**, means a computer for stability calculation or a computer in which a software for stability calculation is installed, which is used for the calculation at the navigation bridge, the cargo control room, etc.
- 4 The performance test specified in item 8 of **Table B3.3, Part B of the Rules** is to be carried out in presence of the Society’s surveyor, so as to ensure correct working in accordance with the procedures specified in the following (1) to (4). Where a copy of the test condition results obtained by the computer check which is carried out prior to such test, in accordance with the procedures specified in (1) to (3) or those in (1) and (4), is to be retained on board as documentation of satisfactory testing for the surveyor’s verification, the confirmation of such copy may substitute for the performance test.
  - (1) Retrieve at least one condition of the test loading conditions which were used for the accuracy check and are specified in the operation manual, carry out a stability calculation and compare stability results with those in the operation manual.
  - (2) Change several items of input data sufficiently to change the draught or displacement by at least 10%. The results are to be reviewed to ensure that they differ in a logical way from those of the test condition as mentioned in (1) above.
  - (3) Revised the modified load condition as mentioned in (2) above to restore the initial test condition as mentioned in (1) above and compare the results.
  - (4) Alternative to the provisions of (2) and (3) above, one or more conditions of the test loading conditions which was used for the accuracy check, other than that mentioned in (1) above, are selected and the test calculation performed by entering all deadweight data for each selected test condition into the programme as if it were a proposed loading. The results are to be verified as identical to the results of the test conditions in the operation manual.
- 5 Inspection of Water Level Detection and Alarm Systems (Refer to **13.8.5, Part D of the Rules, 13.8.6, Part D of the Rules** and **B1.1.3-5(8)(a) and (10)**) specified in item 9 of **Table B3.3, Part B of the Rules**, is to be carried out on the items installed on the following ships.
  - (1) Cargo ships of 500 gross tonnage and above engaged on international voyage, which having a single cargo hold below the freeboard deck or cargo holds below the freeboard deck which are not separated by at least one bulkhead made watertight up to that deck and specified in the following (a) or (b).
    - (a) Cargo ships having a length ( $L_f$ ) of less than 100 m, which had been at beginning stage of construction before 1 July 1998
    - (b) Cargo ships having a length ( $L_f$ ) of less than 80 m, which had been at beginning

stage of construction on and after 1 July 1998

(2) Cargo ships of 500 gross tonnage and above engaged on international voyage and specified in the following (a) or (b).

(a) Bulk carriers defined in 1.3.1(13), Part B of the Rules, which had been at beginning stage of construction before 1 July 2006

(b) Bulk carriers defined in 31A.1.2-1(1), Part C of the Rules, which had been at beginning stage of construction on or after 1 July 2006

**6** Inspection of Dewatering Arrangements (Refer to 13.5.10, Part D of the Rules, and B1.1.3-5(8)(b)) specified in item 10 of Table B3.3, Part B of the Rules, is to be carried out on the items installed on the following ships.

(1) Cargo ships of 500 gross tonnage and above engaged on international voyage and specified in the following (a) or (b).

(a) Bulk carriers defined in 1.3.1(13), Part B of the Rules, which had been at beginning stage of construction before 1 July 2006

(b) Bulk carriers defined in 31A.1.2-1(1), Part C of the Rules, which had been at beginning stage of construction on or after 1 July 2006

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

1. The effective date of the amendments is 1 July 2007.
2. Notwithstanding the amendments to the Guidance, the current requirements may apply to the surveys for which the application is submitted to the Society before the effective date.