RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

Part B Class Surveys

2011 AMENDMENT NO.2

Rule No.82 1st November 2011

Resolved by Technical Committee on 7th July 2011

Approved by Board of Directors on 27th September 2011

Rule No.82 1st November 2011
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 4 INTERMEDIATE SURVEYS

4.1 General

4.1.1 Surveys Equivalent to Special Surveys

Sub-paragraph -2 has been amended as follows.

2 Intermediate Surveys for bulk carriers, oil tankers, and ships carrying dangerous chemicals in bulk over 10 *years* of age and general dry cargo ships of not less than 500 *gross tonnage* over 15 *years* of age are to be carried out to the extent of the previous Special Survey. That is, the surveys specified in **4.2.2**, **4.2.4**, **4.2.5** and **4.2.6** are replaced by **5.2.2**, **5.2.4**, **5.2.5** and **5.2.6** (except **-7**) respectively; and the surveys specified in **5.2.3-2(3), (4)** and Docking Surveys (except item 7 specified in **Table B6.1**) are to be carried out. However, ~~internal examinations of fuel oil, lube oil and fresh water tanks; examinations (both external and internal) of automatic air pipe heads installed on the exposed deck; and thickness measurements of each bottom plate within the cargo length area including lower turn of bilge for general dry cargo ships of not less than 500 *gross tonnage* over 15 *years* of age~~ the following **(1)** to **(3)** do not need to be carried out~~.~~:

(1) Internal examinations of fuel oil, lube oil and fresh water tanks;
(2) Examinations (both external and internal) of automatic air pipe heads installed on the exposed deck and the ventilators and closing appliances for machinery and cargo spaces; and
(3) Thickness measurements of each bottom plate within the cargo length area including lower turn of bilge for general dry cargo ships of not less than 500 *gross tonnage* over 15 *years* of age.

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 November 2011.

Amendment 2-2

Chapter 3 ANNUAL SURVEYS

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

3.2.2 General Examination

Table B3.2 has been amended as follows.

Table B3.2 General Examination

Items	Examination
1 to 21	(omitted)
22 Bow doors, inner doors, side shell doors and stern doors	・ Confirmation that the bow doors, inner doors, side shell doors and stern doors are in good condition.
Additional Requirement for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
~~22~~23 Piping	・ Confirmation that cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other piping in cargo pump room, cargo compressor rooms and on weather decks are in good condition.
Additional Requirement for Bulk Carriers over 10 *years* of age	
~~23~~24 Piping in the cargo holds	・ Confirmation that all piping and penetrations in cargo holds, including overboard piping, are in good condition.
Additional Requirement for General Dry Cargo Ships of not less than 500 *gross tonnage* and over 15 *years* of age	
~~24~~25 Piping in the cargo holds	・ Confirmation that all piping and penetrations in cargo holds, including overboard piping, are in good condition.

Note:
Examination of suspect areas identified at previous surveys is to be carried out.

3.2.3 Performance Test

Table B3.3 has been amended as follows.

Table B3.3 Performance Tests

Items	Tests
1 to 10	(omitted)
11 Bow doors, inner doors, side shell doors and stern doors	・ Checking whether the appliances work in good order is to be carried out. ・ Hose test (when deemed necessary by the Surveyor)

3.2.5 Close-up Surveys

Table B3.5 has been amended as follows.

Table B3.5 Close-up Surveys

Items	Examinations
Requirements for Cargo Ships except when specified otherwise	
1 Bow doors, inner doors, side shell doors and stern doors	・ Close-up surveys of securing, supporting and locking devices, together with welded parts, are to be carried out.
Requirements for Bulk Carriers other than Double Skin Bulk Carriers*1	
1 Hatch covers and hatch coamings	(omitted)
2 Structural members in cargo holds	(omitted)
Requirements for Double Skin Bulk Carriers	
1 Hatch covers and hatch coamings	(omitted)
Requirements for General Dry Cargo Ships of not less than 500 *gross tonnage*	
1 Hatch covers and hatch coamings	(omitted)
2 Cargo hold frames	(omitted)

Note:

*1: For bulk carriers with hybrid cargo hold arrangements, e.g. with some cargo holds of single side skin and others of double side skin, the Requirements for Double Skin Bulk Carriers are to apply to cargo holds of double side skin and associated wing spaces.

3.2.6 Thickness Measurements

Table B3.6 has been amended as follows.

Table B3.6 Thickness Measurements

Items	Note
Requirements for Cargo Ships except when specified otherwise	
1 Structural members in ballast tanks	・When extensive corrosion is found in the examination specified in **Table B3.4** which is required for ships over 5 *years* of age, thickness measurements are to be carried out to the satisfaction of the Surveyor. Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provisions of **5.2.6-2**.
2 Bow doors, inner doors, side shell doors and stern doors	・When deemed necessary by the Surveyor as a consequence of the examination specified in **Table B3.2**, thickness measurements are to be carried out.
Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
1 Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other piping in cargo pump rooms and cargo compressor rooms and on weather decks	(omitted)
2 Structural members in ballast tanks	(omitted)
Requirements for Bulk Carriers	
1 Structural members in ballast tanks	(omitted)
2 Hatch covers and hatch coamings	(omitted)
3 Structural members in cargo holds	
Requirements for General Dry Cargo Ships of not less than 500 *gross tonnage*	
1 Structural members in ballast tanks	(omitted)
2 Hatch covers and hatch coamings	(omitted)
3 Structural members in cargo holds	(omitted)

Chapter 4 INTERMEDIATE SURVEYS

4.2 Intermediate Surveys for Hull, Equipment, Fire extinction and Fittings

4.2.5 Close-up Surveys

Table B4.3(1) has been amended as follows.

Table B4.3(1) Close-up Surveys

Items	Examinations
Requirements for Cargo Ships except when specified otherwise	
1 Bow doors, inner doors, side shell doors and stern doors	・Close-up surveys of securing, supporting and locking devices, together with welded parts, are to be carried out.
Requirements for Ships Carrying Liquefied Gases in bulk	
1 Ballast tanks	(omitted)
Requirements for Bulk Carriers other than Double Skin Bulk Carriers*3	
1 Hatch covers and hatch coamings	(omitted)
2 Structural members in cargo holds .1 Hold frames including their upper and lower end attachments, adjacent shell plating	(omitted)
.2 Transverse bulkheads	(omitted)
.3 Other structural members	(omitted)
Requirements for Double Skin Bulk Carriers	
1 Hatch covers and hatch coamings	(omitted)
2 Structural members in cargo holds	(omitted)

Notes:

*1: Including structural members adjacent to cross ties and/or transverse web frame rings, such as shell plating, longitudinal bulkheads, longitudinal stiffeners, brackets

*2: Including vertical and horizontal girders and adjacent structural members, and adjacent longitudinal bulkhead structure

*3: For bulk carriers with hybrid cargo hold arrangements, e.g. with some cargo holds of single side skin and others of double side skin, the Requirements for Double Skin Bulk Carriers are to apply to cargo holds of double side skin and associated wing spaces.

4.2.6 Thickness Measurements

Table B4.4(1) has been amended as follows.

Table B4.4(1) Thickness measurements

Items	Note
Requirements for Cargo Ships ~~over 5 *years* of age~~ except those specified in the followings	
1 Structural members in ballast tanks	For cargo ships over 5 *years* of age ・Where considered necessary by the Surveyor as a result of the survey specified in **Table B4.2**, thickness measurements are to be carried out at the discretion of the Surveyor, where a poor coating condition, corrosion or other defects are found in a ballast tank or where a protective coating has not been applied from the time of construction. ・Where substantial corrosion is found, additional thickness measurements are to be carried out according to the provision of **5.2.6-2**.
2 Bow doors, inner doors, side shell doors and stern doors	・When deemed necessary by the Surveyor as a consequence of the examination specified in **4.2.2**, thickness measurements are to be carried out.
Requirements for Tankers, Ships Carrying Dangerous Chemicals in bulk and Ships Carrying Liquefied Gases in bulk	
1 Cargo oil, fuel oil, ballast, vent pipes including vent masts and headers, inert gas pipes and all other piping in cargo pump rooms and cargo compressor rooms and on weather decks	(omitted)
2 Structural members in ballast tanks (for ships over 5 *years* of age)	(omitted)
3 Structural members in cargo tanks	(omitted)
Requirements for the Bulk Carriers over 5 *years* of age	
1 Structural members in ballast tanks	(omitted)
2 Hatch covers and hatch coamings	(omitted)
3 Structural members in cargo holds	(omitted)

Chapter 5 SPECIAL SURVEYS

5.2 Special Surveys for Hull, Equipment, Fire Extinction and Fittings

5.2.2 General Examination

Sub-paragraph -1 has been amended as follows.

1 At Special Surveys, ~~all bilge and ballast piping systems~~ items **(1)** to **(3)** below in addition to hull, equipment, fire-extinction, and fittings specified in **4.2.2** are to be examined carefully. ~~Automatic air pipe heads which are located on the exposed deck as well as ventilators and the closing appliances for machinery and cargo spaces are also to be examined carefully.~~

(1) All bilge and ballast piping systems

(2) Automatic air pipe heads which are located on exposed decks as well as the ventilators and closing appliances of machinery and cargo spaces

(3) For ships having bow doors, inner doors, side shell doors and stern doors, the surveys specified in **(a)** and **(b)** below are to be carried out.

(a) Clearance measurements of hinges, bearings and thrust bearings are to be taken. Unless otherwise specified in the Operating and Maintenance Manual or by manufacturer recommendation, such clearance measurements may be limited to representative bearings in cases where dismantling is necessary in order to perform such measurements. If dismantling is carried out, a visual examination of hinge pins and bearings together with non-destructive testing of the hinge pin is to be carried out.

(b) The non-return valves of the drainage system are to be dismantled and examined.

5.2.3 Performance Test

Sub-paragraph -2 has been amended as follows.

2 In addition to **-1** above, the performance tests and operation tests specified in **(1)** to **(8)** below are to be carried out.

(1) Operation test for all mechanically operated hatch covers

(2) Hose tests listed in **Table 2.1** or equivalent, for all weathertight hatch covers

(3) Performance tests and operation tests for all bilge and ballast piping system

(4) Hose tests or equivalent, for all bow doors, inner doors, side shell doors and stern doors

(~~4~~5) For oil tankers and ships carrying dangerous chemical in bulk, performance tests and operation tests of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, pipe tunnels, cofferdams and void spaces, and on the weather deck

(~~5~~6) For ships carrying liquefied gases in bulk, performance test and operation test of cargo and ballast piping systems within all cargo tanks, all ballast tanks and all tanks and spaces bounding cargo tanks such as pump rooms, cargo compressor rooms, pipe tunnels, cofferdams and void spaces, and on weather deck

(~~6~~7) For bulk carriers and general dry cargo ships of 500 *gross tonnage*, performance test and operation test of all piping systems within cargo holds, all ballast tanks and all tanks and spaces bounding cargo holds such as pipe tunnels, cofferdams, void spaces, and other similar spaces

bounding cargo holds, and those on weather decks

(~~7~~8) Performance tests listed in item 1 of **Table B4.1,** for all water level detection and alarm systems.

(~~8~~9) Performance test for the means of embarkation and disembarkation, for ships not less than 500 *gross tonnage* which are engaged on international voyages.

5.2.5 Close-up Surveys

Sub-paragraph -1 has been amended as follows.

1 At Special Surveys, Close-up Surveys are to be carried out for portions **(1)** to **(~~3~~4)** below:

(1) Lower parts of shell frames, tank side brackets and transverse bulkheads

(2) Lower parts of air pipes and sounding pipes located on top of inner bottom plating

(3) All hatch cover plating, hatch coaming plating, and stiffeners

(4) Securing, supporting and locking devices together with the welded parts of bow doors, inner doors, side shell doors and stern doors

5.2.6 Thickness Measurements

Table B5.8 has been amended as follows.

Table B5.8 Requirements for Thickness Measurements for Cargo Ships

Special Survey	Structural members subject to thickness measurement
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. Suspect areas 2. All bow doors, inner doors, side shell doors and stern doors when deemed necessary by the Surveyor (plating and stiffeners)
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. Suspect areas 2. Each plate in one section of the strength deck plating for the full beam of the ship within 0.5*L* amidships 3. All bow doors, inner doors, side shell doors and stern doors when deemed necessary by the Surveyor (plating and stiffeners)
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. Suspect areas 2. Each plate and member in two transverse sections within 0.5*L* amidships. (in way of two different cargo spaces, if applicable) 3. Internals in fore and aft. peak tank 4. Both ends and middle part of each hatch side and end coaming (plating and stiffeners) 5. All cargo hold hatch covers (plating and stiffeners) 6. All bow doors, inner doors, side shell doors and stern doors when deemed necessary by the Surveyor (plating and stiffeners)
Special Survey for ships over 15 *years* and up to 20 *years* of age (Special Survey No.4)	(omitted)
Special Survey for ships over 20 *years* of age (Special Survey No.5 and subsequent Special Surveys)	(omitted)

Chapter 6 DOCKING SURVEYS

6.1 Docking Surveys

6.1.2 In-water Surveys

Sub-paragraph -1 has been amended as follows.

1 In-water Surveys may be accepted in lieu of Surveys in the dry dock or on the slipway subject to prior approval by the Society. In any case, Surveys in the dry dock or on the slipway to be carried out at the times specified in **(1)** or **(2)** are not to be replaced with In-water Surveys. Except where expressly approved by the Administration, consecutive In-water Surveys should not be accepted in lieu of Surveys in dry dock or on slipway carried out at the times specified in **1.1.3-1(4)**;

(1) Docking Surveys carried out at the times specified in **1.1.3-1(4)(a)** for the general dry cargo ships defined in **1.3.1(15)** and for ships with the class notation "*Enhanced Survey Programme*" (abbreviated to *ESP*)

(2) Docking Surveys carried out for ships with the class notation "*Enhanced Survey Programme*" (abbreviated to *ESP*), all of which are ~~over~~ 15 *years* of age and over

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 January 2012.

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.

Amendment 2-3

Chapter 12 SURVEYS FOR MOBILE OFFSHORE DRILLING UNITS, WORK SHIPS, AND SPECIAL PURPOSE BARGES

12.2 Classification Survey during Construction

12.2.2 Submission of Plans and Documents

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

1 Submission of Plans and Documents for Approval

With respect to the Classification Survey During Construction, the following plans and documents are to be submitted to the Society for approval before the work is commenced.

(1) Hull
- (a) Cross sections (showing the maximum load line and load line during towing)
- (b) Longitudinal sections
- (c) Details of inspection facilities
- (d) Details of welding procedures
- (e) Details of painting and corrosion control procedures
- (f) Temporary mooring arrangements, towing arrangements
- (g) Arrangements and construction of positioning systems
- (h) Summary of distributions of fixed and variable weights
- (i) Plan indicating design loads for all decks
- (j) Stability information booklet
- (k) Loading manual, where the loading manual is to be provided in accordance with the requirements of **7.6.1-2, Part P**
- (l) Details of maintenance and inspection procedures and docking plan and in-water inspection procedures
- (m) For self-elevating units, construction of all legs, leg connections to bottom mats or spud cans, leg tanks and leg jacking or other elevating systems
- (n) For column-stabilized units, construction of all columns, lower hull, upper hull, bracing, footings
- (o) For large storage units, rupture hatches arrangements
- (p) For mobile offshore drilling units, the following plans and documents:
  - i) Arrangement of drilling derricks, details of drilling derrick constructions and relevant documents
  - ii) Arrangement of equipment installed on drill floors
  - iii) Details of drill floors and substructure constructions
- (~~p~~q) Other plans and/or documents deemed necessary by the Society.

(2) (Omitted)

2 Submission of Plans and Documents for Reference

With respect to the Classification Survey During Construction, the following plans and documents are to be submitted for reference in addition to the plans and documents specified in **-1**.

(1) Method and calculation sheets of structural analysis for relevant loading condition

(2) Data or documents on environmental parameters used for determination of design loads (including data such as past measurement data, the effect of wave breakers, and towing routes)

and calculation methods of total external forces and moments due to wind, waves, tidal currents, reactions to mooring or positioning systems and other loads
(3) Documents on the effects of icing or snow on loading, stability and projected area
(4) Calculation sheets for intact and damage stability in all conditions
(5) Documents relating to the requirements of **(2)** to **(4)**, where the loads and stability are determined using appropriate model tests or computing methods
(6) Calculation of significant operational loads from the drilling derricks and other equipment on the supporting structure
(Omitted)

12.2.3 Presence of Surveyor

Sub-paragraph -1 has been amended as follows.

1 During the Classification Survey, the presence of the Surveyor is required at the following stages of the work in relation to hull construction, equipment, machinery and electrical installations.
(1) When specified by the requirements of **2.1.4-1** and **2.1.4-2** or when conducting the tests, examinations or inspections specified in **12.2.4,** and **12.2.6**
(2) For machinery and electrical installations, when the tests, examinations or inspections specified in **11.1.2** or **12.1.2, Part P** are carried out
(3) For column-stabilized units, when the draught scales are fitted
(4) For large storage units, when the operation test of rupture hatches is carried out at a pressure below the design operational pressure
(5) For units requiring the mooring system specified in **Chapter 10, Part P**, when that system is installed on the unit
(6) For units with a dynamic positioning system, when components of the dynamic positioning system are installed on the units and tests are carried out in accordance with the testing procedure
(7) For mobile offshore drilling units, when each part of drilling derricks and substructures including supporting structures of drilling derricks is completed and drilling derricks and substructures are installed on board.
2 The requirements specified in **-1** may be modified with regard to the actual status of facilities, technical abilities and quality control at the place of manufacture, except in the case of sea trials and stability experiments.

12.3 Annual Surveys

12.3.2 Annual Surveys for Hull, Equipment, Fire Extinguishing Systems, and Fittings

Sub-paragraph -2 has been amended as follows.

(Omitted)
2 Annual Surveys for hulls, equipment, fire extinguishing systems and fittings
At Annual Surveys, the general condition of the following are to be examined as far as practicable, in addition to the relevant survey items specified in **3.2.2** through **3.2.7** corresponding to hull structure, equipment, purpose, etc.

(1) Mooring systems specified in **Chapter 10, Part P**, their fittings and adjacent hull construction
(2) For mobile offshore drilling units, the exposed parts of ~~the~~ drilling derricks~~,~~ and ~~derrick~~ substructures including the supporting structures of drilling derricks~~, and anchor racks~~

(Omitted)

12.5 Special Surveys

12.5.2 Special Surveys for Hull, Equipment, Fire Extinguishing Systems and Fittings

Sub-paragraph -3 has been amended as follows.

(Omitted)
3 For mobile offshore drilling units, a thorough examination is to be conducted on drilling derricks, substructures (including the supporting structures of drilling derricks) as well as~~and its base structure;~~ the connections of ~~the~~ drilling derricks to the hull~~;~~, and the supports and reinforcements on the hull where the drill is attached.
(Omitted)

Chapter 15 SURVEYS FOR WORK-SHIPS

15.2 Classification Surveys during Construction

15.2.1 General

Sub-paragraph -2 has been amended as follows.

1 In Classification Surveys During Construction, surveys are to be carried out on the hull construction, equipment, machinery, fire protection, means of escape, fire extinguishing systems, electrical installations, stability and load lines in order to ascertain that they meet the relevant requirements of **Part O**.

2 In Classification Surveys, surveys on materials, hull construction, equipment, machinery, etc. are to be carried out in accordance with the requirements specified in ~~**15.2.2** to **15.2.3**~~ this **15.2** in addition to the relevant requirements specified in **Chapter 2**.

15.2.2 Submission of Plans and Documents

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

1 In the Classification Survey During Construction, the followings plans and documents in addition to those plans and documents specified in relevant requirements in **2.1.2** are to be submitted to the Society for approval before the work is commenced. The plans and documents may be submitted for examination by the Society prior to making an application for the classification of the ship as stipulated otherwise by the Society.

(1) Plans for the installations and machinery for the intended work (hereinafter referred to as "work-related installations")
(2) Plans for the supporting structures of work-related installations
(3) The following plans and documents for dynamic positioning systems in cases where such a system is installed on the ship
  (a) Arrangements and construction of the dynamic positioning system
  (b) Construction and control diagrams of the dynamic positioning system
(4) For self-elevating ships, the following plans and documents:
  (a) Construction of all legs, leg connections to bottom mats or spud cans, leg tanks and leg jacking or other elevating systems
  (b) Construction and control diagrams of jacking systems

2 In the Classification Survey During Construction, the following plans and documents in addition to those plans and documents specified in relevant requirements in **-1** above and **2.1.3** are to be submitted for reference.

(1) ~~Testing procedure of the dynamic positioning system (including the test items of Periodical Surveys, test procedures, criteria, etc.) in cases where such a system is installed on the ships~~ The following plans and documents for dynamic positioning systems in cases where such a system is installed on the ship
  (a) Calculation sheets for dynamic positioning systems
  (b) Procedures for testing dynamic positioning systems (including the test items of Periodical

Surveys, test procedures, criteria, etc.)

(2) For self-elevating ships, the following plans and documents:

(a) Calculations substantiating the adequacy of the structure to transmit forces between legs and the hull through jacking or other elevating systems

(b) Calculation of the ship's ability to resist overturning

(3) Operating manuals

(4) For machinery installations used solely for operations that are the purpose of the ship: plans and documents indicating the safety devices of such machinery installations and those specified in **Chapters 9** and **10, Part D**

3 Submission of other plans and documents not specified in **-1** and **-2** may be required where deemed necessary by the Society

4 Notwithstanding **-1** and **-2**, part of the plans and documents specified in **-1** and **-2** may be omitted in accordance with requirements stipulated otherwise by the Society, in cases where a ship or machinery is built at the same place of manufacture based on plans and documents which have already been approved.

Paragraphs 15.2.4 to 15.2.6 have been added as follows.

15.2.4 Sea Trials and Stability Experiments

1 Sea Trials

For ships that have main propulsion machinery, the following tests corresponding to ship type are to be carried out in addition to the sea trials required in **2.3.1**:

(1) For self-elevating ships, elevating and lowering tests of legs and decks and function tests of their safety devices; and where legs are not provided with bottom mats, pre-loading tests on each leg to a load as near as possible to that of the strength calculation

(2) The Society may require a demonstration test in still water after the completion of the hull construction work, where the ship is operating under the severest loading condition in order to verify the adequacy of the theoretical calculations and to confirm the safety factor during operation

2 Stability Experiments

Stability experiments required in **2.3.2** are to be carried out.

15.2.5 Documents to be Maintained on Board

At the completion of a classification survey, the Surveyor is to confirm that the finished versions of the following in addition to all of the applicable drawings, plans, manuals, lists, etc. listed in **2.1.6**, are on board.

(1) Operating manuals

(2) Testing procedure for dynamic positioning systems, for ships with a dynamic positioning system

15.2.6 Classification Survey of Ships not Built under Survey

1 Classification surveys of ships not built under survey are to be according to relevant requirements in **2.2**.

2 At the completion of a classification survey, the Surveyor is to confirm that the documents specified in **15.2.5** are on board the ship.

15.3 Annual Surveys

Paragraph 15.3.2 has been amended as follows.

15.3.2 Annual Surveys for Hull, Equipment, Fire Extinguishing Systems, and Fittings

1 It is to be verified that the following documents and booklets have been kept on board and are readily available.

(1) Relevant items listed **Table B3.1** corresponding to the ship's hull structure and purpose

(2) Operating manuals

(~~2~~3) Testing procedure for dynamic positioning systems, for ships with a dynamic positioning system

2 Annual Surveys for Hulls, Equipment, Fire Extinguishing Systems and Fittings

At Annual Surveys, the general condition of the following is to be examined, in addition to the relevant survey items specified in **3.2.2** through **3.2.7** corresponding to hull structure, equipment, purpose, etc.

(1) Work-related installations and their supporting structures

3 For self-elevating ships, general examinations of the following items are to be carried out in addition to **-1** and **-2** as far as practicable down to the waterline.

(1) Leg structures

(2) Jack frames, leg supporting structures and upper hulls or adjacent platform structures

4 For ship-type ships and barge-type ships, general examinations of surrounding constructions of openings such as moon pools are to be carried out in addition to **-1** and **-2** as far as practicable down to the waterline.

15.3.3 Annual Surveys for Machinery and Electrical Installations

Sub-paragraph (4) has been added as follows.

At Annual Surveys for machinery and electrical installations, general examinations of the relevant machinery and electrical installations specified in **3.3** are to be carried out in addition to the following surveys:

(1) General examinations of work-related installations are to be carried out. In cases where deemed necessary by the Surveyor, performance tests of work-related installations may be required.

(2) For ships with a dynamic positioning system, a general examination of its components and a performance test in accordance with the testing procedure for dynamic positioning systems is to be carried out.

(3) General conditions of the electrical installations in hazardous areas are to be examined. For ships of ten *years* of age and over, insulation resistance of these installations is to be measured. This measurement, however, may be dispensed with where proper measurement records are kept on board and are found to be satisfactory by the Surveyor.

(4) For self-elevating ships, the condition of jacking or elevating systems and leg guides is to be examined.

15.4 Intermediate Surveys

15.4.2 Intermediate Surveys for Hull, Equipment, Fire Extinction and Fittings

Sub-paragraph -3 has been added as follows.

1 Examination of Plans and Documents

At Intermediate Surveys, the management conditions of plans and documents listed in **15.3.2-1** is to be examined.

2 Intermediate Surveys for Hulls, Equipment, Fire Extinguishing Systems, and Fittings

At Intermediate Surveys, the relevant survey items specified in **4.2.2** through **4.2.7** corresponding to the ship's structure, equipment, etc. are to be examined. In addition, a general examination of hull, equipment, fire extinguishing systems and fittings specified in **15.3.2-2** is to be carried out.

3 For self-elevating ships, the following survey items are to be examined in addition to the survey items specified in **-1** and **-2**:

(1) For ships over 5 *years of age*, an internal examination and thickness measurements of representative ballast tanks and at least two pre-load tanks are to be conducted.

(2) Where the effectiveness of the corrosion protection of those tanks is verified as a result of the internal examination specified in **(1)**, thickness measurements may be dispensed with.

Paragraph 15.4.3 has been amended as follows.

15.4.3 Intermediate Surveys for Machinery and Electrical Installations

1 At Intermediate Surveys, relevant survey items for the machinery and electrical installations specified in **4.3** and the survey items specified in **15.3.3** are to be examined according to type.

2 For Self-elevating ships, overhaul examinations of jacking systems are to be carried out, if deemed necessary by the Surveyor.

15.5 Special Surveys

15.5.2 Special Surveys for Hull, Equipment, Fire Extinguishing Systems and Fittings

Sub-paragraphs -3 and -4 have been added as follows.

1 Examination of Plans and Documents

At Intermediate Surveys, the management conditions of plans and documents listed in **15.3.2-1** is to be examined.

2 Special Surveys for Hull, Equipment, Fire Extinguishing Systems, and Fittings

At Special surveys, the following survey items are to be examined, in addition to the relevant survey items specified in **5.2.2** through **5.2.7** corresponding to the ship's structure, equipment, etc. The hull, equipment, fire extinguishing systems and fittings specified in **15.4.2-2** are to be examined thoroughly.

(1) For ships with a dynamic positioning system, a general examination of its components and fittings and an operating test is to be carried out in accordance with the test procedure for dynamic positioning systems.

3 For self-elevating ships, the thorough examinations described below are to be carried out, in addition to the survey items specified in **-1** and **-2**.

(1) All legs including chords, bracing, gussets, racks, joints, and leg guides
Tubular or similar type legs are to be examined externally and internally together with internal stiffeners.

(2) Externals of jack-house structures and attachments to upper hulls or platforms and plating and supporting structures in way of leg wells

(3) Connections between legs and bottom mats or footings

(4) Interior and exterior of bottom mats or footings

(5) Parts specified in **(1)** through **(3)** designated by the Society as having a concentration of stress may require non-destructive tests

(6) For ships over 5 *years of age*, thickness measurement of members in representative ballast tanks and at least two pre load tanks, in addition to the examinations specified in **(1)** through **(5)**
Where the effectiveness of the corrosion protection of those tanks is verified as a result of internal examinations, thickness measurements of these structural members may be omitted as deemed appropriate by the Society.

4 For ship-type ships and barge-type ships, the thorough examinations described below are to be carried out, in addition to the survey items specified in **-1** and **-2**

(1) For ships with a dynamic positioning system, structural appendages and ducts for dynamic positioning systems

(2) Hull structures around openings such as moon pools

(3) Parts specified in **(2)** designated by the Society as having a concentration of stress may require non-destructive tests

Paragraph 15.5.3 has been amended as follows.

15.5.3 Special Surveys for Machinery and Electrical Installations

1 At Special Survey, relevant survey items for the machinery and electrical installations specified in **5.3** and the survey items specified in **15.3.3** are to be examined according to type.

2 For self-elevating ships, a general examinations of jacking systems are to be carried out. Where deemed necessary by the Surveyor, an overhaul examination of the jacking system is to be carried out.

15.6 Docking Surveys

15.6.1 General

Sub-paragraphs -3 and -4 have been added as follows.

1 Docking Surveys are to be according to the requirements in this **15.6** in addition to relevant requirements in **Chapter 6**.

2 For ships with a dynamic positioning system, a general examination of installations and its fittings and a performance test are to be carried out in accordance with the testing procedure for dynamic positioning systems.

3 For self-elevating ships, the following parts are to be examined in addition to the requirements specified in **-1** and **-2**:

(1) External surface of the hull

(2) External surface of spud cans, mats, under water areas of legs and their connections
(3) The surveyor may request non-destructive tests of important parts or suspect areas of substantial corrosion as a result of the examinations.

4 For ships over 5 *years of age*, internal examinations and non-destructive tests of the representative ballast tanks or free-flooding compartments in bottom mats or spud cans, if accessible, and at least two representative pre-load tanks are to be carried out. However, where corrosion control arrangements of these ballast spaces are considered satisfactory, non-destructive tests may be dispensed with.

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 May 2012.

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.

3. Notwithstanding the provision of preceding **2.**, the amendments to the Rules may apply to ships for which the application is submitted to the Society before the effective date upon request by the owner.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE

Part B Class Surveys

2011 AMENDMENT NO.2

Notice No.90 1st November 2011

Resolved by Technical Committee on 7th July 2011

Notice No.90 1st November 2011
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 SURVEYS

B2.3 Sea Trials and Stability Experiments

B2.3.1 Sea Trials

Sub-paragraph -7 has been amended as follows.

7 Function tests of the control systems for main propulsion machinery or controllable pitch propellers, boilers and electric generating sets required by **2.3.1-1(7), Part B of the Rules** are to be carried out in accordance with the following **(1)** to **(4)**. However, where these tests have been carried out when the ship was anchored or at dockside, some of these tests may be dispensed with at the sea trial.

(1) (Omitted)
(2) (Omitted)
(3) (Omitted)
(4) For the electric generating sets specified in **3.2.1-3, Part H of the Rules** the following items are to be confirmed while the main propulsion machinery is operating in normal continuous cruise output. However, in cases where the main propulsion machinery is operating at an output other than normal continuous cruising output, the tests may be carried out while main propulsion machinery is operating at said output on the condition that all active peripheral equipment are operating at outputs that are the same as the normal continuous cruising output of the main propulsion machinery.
    (a) Where only one electric generating set is normally used, the standby generator, air circuit breakers, and important auxiliary machinery start up automatically when the main source of electrical power is stopped by tripping a circuit breaker
    (b) Where two electric generating sets are normally used, preference tripping of unnecessary loads is performed and propulsion and steering of the ship are maintained, when the circuit breaker of one of the sets is tripped

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 November 2011.

Amendment 2-2

B3 ANNUAL SURVEYS

B3.2 Annual Surveys for Hull, Equipment, Fire extinction and Fittings

B3.2.1 Examination of Plans and Documents

Sub-paragraph -3 has been amended as follows.

3 The record of maintenance and repair work, which is specified in No.10 of **Table B3.1, Part B of the Rules,** is ~~recommended~~ to be in accordance with the "*Guidelines for maintenance and repair of protective coatings*" (*MSC*.1/*Circ*.1330).

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 November 2011.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to the maintenance and repair of protective coatings which are conducted before the effective date.

Amendment 2-3

B8 PROPELLER SHAFT AND STERN TUBE SHAFT SURVEYS

B8.1 Propeller Shaft and Stern Tube Shaft Surveys

B8.1.3 Preventive Maintenance System

Table B8.1.3-1 has been amended as follows.

Table B8.1.3-1 Approval procedure of preventive maintenance system for oil lubricated propeller shafts

<table>
<tr><th>Item</th><th>Procedures</th></tr>
<tr><td>1. General</td><td>(Omitted)</td></tr>
<tr><td>2. Application</td><td>(Omitted)</td></tr>
<tr><td>3. Approval and Notation</td><td>(Omitted)</td></tr>
<tr><td>4. Approval Conditions</td><td>-3 Criteria for parameters
The management is to determine the criteria for each parameter for the ship based on the reference standards below and by taking into account its experience and knowledge.
(1) Oil analysis
(a) Analytical items and methods:
Refer to Table 1 as a standard. However, alternative analytical items and methods can be adopted instead where deemed appropriate by the Society.
Table 1 Standard criteria (Reference)
<table>
<tr><th>analytical items</th><th>max. values</th><th>analytical methods</th></tr>
<tr><td>Fe (ppm)</td><td>50</td><td>ICP (SOAP)</td></tr>
<tr><td><s>Cu (ppm)</s></td><td><s>50</s></td><td><s>ICP (SOAP)</s></td></tr>
<tr><td>Sn (ppm)</td><td>20</td><td>ICP (SOAP)</td></tr>
<tr><td>Pb (ppm)</td><td>20</td><td>ICP (SOAP)</td></tr>
<tr><td><s>Ni (ppm)</s></td><td><s>10</s></td><td><s>ICP (SOAP)</s></td></tr>
<tr><td><s>Cr (ppm)</s></td><td><s>10</s></td><td><s>ICP (SOAP)</s></td></tr>
<tr><td>Na (ppm)</td><td>80</td><td>ICP (SOAP)</td></tr>
<tr><td><s>Ferrography (WPC/ml)</s></td><td><s>30</s></td><td><s>Direct Reading</s></td></tr>
<tr><td>IR Oxidation @ 5.85 μm (Abs. unit/cm)</td><td>10</td><td>FT-IR</td></tr>
<tr><td>Separated Water (%)</td><td>1</td><td>Visual(24 settling hrs)</td></tr>
</table>
(b) Standard criteria:
To be within the max. values specified in Table 1 counting from the values of the new oil
(c) Alarm values:
To be less than double the standard criteria (where any parameter exceeds the alarm value, the testing oil is to be re-sampled and re-analysis for all the items is to be carried out immediately)
(2) Lubricating oil consumption rate:
2 l/day or less
(3) Temperature at aft. stern tube bearing:
55°C or less
(4) Wear down for oil lubricated bearing:
0.3 mm or less</td></tr>
<tr><td>5. After Approval</td><td>(Omitted)</td></tr>
<tr><td>6. Cancellation of Approval</td><td>(Omitted)</td></tr>
</table>

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 November 2011.

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.

Amendment 2-4

B1 GENERAL

B1.1 Surveys

B1.1.3 Intervals of Class Maintenance Surveys

Sub-paragraph -5 has been amended as follows.

5 Occasional surveys specified in **1.1.3-3(5), Part B of the Rules** are as specified below:
((1) to (11) are omitted)
(12) Portable Instruments for Measuring Oxygen Concentrations
For tankers which had been at the beginning stage of construction prior to 1 January 2012, a survey is to be carried out by the first survey on of after 1 January 2012 to verify that the portable instruments for measuring oxygen concentrations specified in **4.5.7(1), Part R of the Rules** are equipped.

EFFECTIVE DATE AND APPLICATION (Amendment 2-4)

1. The effective date of the amendments is 1 January 2012.

Amendment 2-5

B2 CLASSIFICATION SURVEYS

B2.1 Classification Survey during Construction

B2.1.4 Presence of the Surveyor

Sub-paragraph -1(3)(a) has been amended as follows.

1 At the surveys for fire extinguishing systems referred to in **2.1.4-1(15), Part B of the Rules**, the following examinations are to be carried out. Where it is impractical to carry out the examinations onboard the ship, the examinations may be replaced with examinations carried out at the place of manufacture under the presence of the Surveyor.

(3) For fire extinguishing systems, fire detecting systems and manually operated call points:

(a) Fire main line including associated pumps

i) Confirmation that each fire main pump can be operated separately so that two jets of water (at least 12 *m*) are produced simultaneously from different hydrants at any part of the ship whilst the required pressure is maintained in the fire main

ii) For emergency fire pumps, as i) above. Performance tests are to be carried out at the shallowest draught possible. This draught need not be shallower than the one corresponding to the lightest seagoing condition.

iii) For ships having an operating system for periodically unattended machinery space, an operation test of the remote control system or automatic operation system of one pump

iv) For ships employing permanent pressurization of the fire main system, a pressure test for ordinarily pressurized parts of the system with a pressure 1.5 times the working pressure

EFFECTIVE DATE AND APPLICATION (Amendment 2-5)

1. The effective date of the amendments is 1 January 2012.

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 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.

Amendment 2-6

B2 CLASSIFICATION SURVEYS

B2.1 Classification Survey during Construction

B2.1.4 Presence of the Surveyor

Sub-paragraph -1(3) has been amended as follows.

1 At the surveys for fire extinguishing systems referred to in **2.1.4-1(15), Part B of the Rules**, the following examinations are to be carried out. Where it is impractical to carry out the examinations onboard the ship, the examinations may be replaced with examinations carried out at the place of manufacture under the presence of the Surveyor.

(3) For fire extinguishing systems, fire detecting systems and manually operated call points:

((a) to (g) are omitted.)

(h) Fire detecting system

i) Performance tests for one detector of each group (for on-board function tests of fixed fire detection and alarm systems installed in machinery spaces specified in **7.4.1-1**, **Part R of the Rules**, refer to the test procedures shown in **Annex B2.1.4-1(3)(h)i)**)

ii) A performance test of the alarm system under loss of power or fault condition

iii) The testing of the sample extraction smoke detection systems specified in **30.2.4-2(2)**

(i) (omitted)

EFFECTIVE DATE AND APPLICATION (Amendment 2-6)

1. The effective date of the amendments is 1 January 2012.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date.

(Note) The term "*a similar stage of construction*" means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 *tonnes* or 1% of the estimated mass of all structural material, whichever is the less.

Amendment 2-7

B3 ANNUAL SURVEYS

B3.2 Annual Surveys for Hull, Equipment, Fire extinction and Fittings

B3.2.2 General Examination

Sub-paragraph -5 has been added as follows.

5 The general examination of "bow doors, inner doors, side shell doors and stern doors (hereinafter collectively referred to as "door(s)")" stipulated in item 22 of **Table B3.2, Part B of the Rules** is to confirm that the items specified **(1)** to **(7)** below are in good condition. Non-destructive testing may be required when deemed necessary by the Surveyor as a consequence of the examination specified in **Table 3.2, Part B of the Rules**.

(1) Structural members such as plating and stiffeners and related welded parts of the door(s)

(2) Structural members such as plating and stiffeners of the surrounding hull structure

(3) Items **(a)** to **(h)** below for the door(s)

- (a) Securing, supporting and locking devices
- (b) Hinges, bearings and thrust bearings
- (c) Interlock systems for opening/closing systems and the securing and locking devices
- (d) Sealing arrangements
- (e) Electric devices for operating
- (f) Drainage systems and arrangements
- (g) Hydraulic devices
- (h) Any other devices which are required for the ship in accordance with **Chapter 23, Part C** of the Rules and **Chapter 21, Part CS of the Rules**

(4) In addition to **(3)** above, clearance measurements for the hinges, bearings and thrust bearings of doors are to be carried out in cases where no dismantling is required. If the results of the function test are not satisfactory, dismantling may be required to measure clearances in cases where deemed necessary by the Surveyor. If dismantling is carried out, a visual examination of hinge pins and bearings together with non-destructive testing of the hinge pin is to be carried out. Clearance measurements of securing, supporting and locking devices are to be taken in cases where indicated in the Operating and Maintenance Manual.

(5) Items **(a)** to **(f)** below for indication / monitoring systems, where fitted.

- (a) Visible indication and audible alarms (hereinafter referred to as "indication and alarm system") at the navigation bridge panel and on the operating panel
- (b) Lamp test function at the navigation bridge panel and on the operating panel
- (c) Mode selecting function that allows selection between "harbour" and "sea voyage"
- (d) Power supply for the indication and alarm system
- (e) Sensor for the indication and alarm system
- (f) Any other systems which are required for the ship in accordance with **Chapter 23, Part C of the Rules** and **Chapter 21, Part CS of the Rules**

(6) Where fitted, water leakage detection systems are to be tested including the proper audible alarms on the navigation bridge panel and on the engine control room panel, according to the procedures specified in the Operating and Maintenance Manual.

(7) Where fitted, television surveillance systems are to be tested including the proper indications on the navigation bridge monitor and on the engine control room monitor.

B5 SPECIAL SURVEYS

B5.2 Special Surveys for Hull, Equipment, Fire extinction and Fittings

Paragraph B5.2.5 has been amended as follows.

B5.2.5 Close-up Surveys

1 Non-destructive testing may be required to detect fractures when deemed necessary by the Surveyor.

2 Thickness measurements are to be carried out on the securing, supporting and locking devices of bow doors, inner doors, side shell doors and stern doors to the extent considered necessary by the Surveyor. The maximum thickness diminution of such securing, supporting and locking devices is not to be more than 15% of the as-built thickness.

~~**2**~~**3** For the areas described in **(H)** in **Table B5.5, Part B of the Rules**, refer to **Fig.B5.2.5**.

B6 DOCKING SURVEYS

B6.1 Docking Surveys

Paragraph B6.1.2 has been amended as follows.

B6.1.2 In-water Surveys

The approval of application for the In-water Survey specified in **6.1.2, Part B of the Rules** is subject to the following conditions in **(1)** and **(2)**.

(1) Application

In principle, In-water Surveys are applicable to ships ~~up to~~ under 15 *years* of age.

(2) Survey Conditions

The In-water Survey is to be carried out under the following conditions in **(a)** through **(c)** to ensure that the information obtained is as reliable as that obtained by surveys in a dry dock or on slipway.

(a) The ship is at its lightest possible draught and is in sheltered waters~~ where in-water visibility is good~~. ~~The hull below the waterline is sufficiently cleaned.~~ The in-water visibility and the cleanliness of the hull below the waterline are to be good enough to permit a meaningful examination which allows the Surveyor and diver to determine the condition of the plating, appendages and welding, and the Surveyor is present.

(b) Diving and in-water survey operations are to be carried out by a company approved by the Society under the **Rules for Approval of Manufacturers and Service Suppliers** which is separately specified. The services of a diver well-experienced in using underwater cameras (still and live) in in-water surveying operations are to be available.

(c) The Surveyor is to have access to a video display unit for viewing live footage and a means to keep good communication with the underwater diver. Means for taking colour photographs is to be provided.

EFFECTIVE DATE AND APPLICATION (Amendment 2-7)

1. The effective date of the amendments is 1 January 2012.

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.

Amendment 2-8

B12 SURVEYS FOR MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES

B12.1 General

Paragraph B12.1.2 has been added as follows.

B12.1.2 General Requirements on Surveys

In cases where drilling derricks installed on board are detachable type, an Occasional Survey is to be carriage out when drilling derricks are detached and reinstalled. In addition, Periodical Surveys may substitute for the Occasional Surveys where the survey items of the Occasional Surveys are inspected as a part of the Periodical Surveys.

B12.2 Classification Survey during Construction

B12.2.2 Submission of Plans and Documents

Sub-paragraphs -7 and -8 have been added as follows.

(Omitted)

7 "Details of drilling derrick constructions" stipulated in **12.2.2-1(1)(p)i)**, refers to the following plans:

(1) General arrangement
(2) Details of the main structural members of the drilling derrick
(3) Assembly plan of the drilling derrick
(4) Foundations and anchor bolt plans of the drilling derrick

8 "Relevant documents" stipulated in **12.2.2-1(1)(p)ii)**, refers to the following:

(1) Results of structural analysis
(2) Structural details
(3) Structural analysis method
(4) Design criteria
(5) Technical specifications for equipment installed on the drilling derrick
(6) Material specification of the drilling derrick
(7) In cases where bolted connections are applied for the drilling derrick, the specifications, materials and torque procedures for said bolts
(8) Painting plans for the drilling derrick
(9) Rigging arrangement

B12.2.3 Presence of Surveyor

Sub-paragraph -7 has been added as follows.

(Omitted)

7 Surveys for drilling derricks stipulated in **12.2.3-1(7)** are to be in accordance with the following

(1) to **(3)**:

(1) General examinations are to be carried out on drilling derricks including welded and bolted connections.

(2) Non-destructive tests (ultrasonic tests or radiographic tests) are to be carried out on welded connections of main structural members and other parts liable to bear high stress.

(3) It is to be confirmed that the drilling derrick is properly installed in its designed position and within the allowable design tolerance.

B12.3 Annual Surveys

B12.3.2 Annual Surveys for Hull, Equipment, Fire Extinguishing Systems, and Fittings

Sub-paragraph -3 has been added as follows.

1 For self-elevating units and column-stabilized units, thorough examinations including a non-destructive test of essential structural members deemed necessary by the Society may be required at the first Annual Survey after the date of completion of Classification Survey during construction.

2 For mooring systems specified in **12.3.2-2(1), Part B of the Rules** the following examinations are to be carried out.

(1) Chain cable

(a) Thorough examination of chain cables as far as accessible
Special attention is to be paid to the chain stopper and chain cables contacting pockets.

(b) Diameter measurement of chain links that are substantially corroded or whose mean diameters measured at the last Special Survey are less than 92% of the original
In addition, non-destructive tests, and measurement of the length of 3 links or 5 links and the bending angle of chain links are to be carried out as far as practicable.
Where the results come under the provisions of **B12.5.2-2**, such chain links are to be discarded, and connecting shackles inserted or replaced by new chain links.

(2) Wire ropes
Visual inspection as far as accessible
Particular attention needs to be paid to the parts that have become flat, where individual wires are broken, and are worm or corroded.

(3) Windlass, fairleads and winches
General inspection of pockets, gears and drums of windlasses, fairleads and winches as far as practicable

3 Surveys stipulated in **12.3.2-2(2), Part B of the Rules** are to be in accordance with the following:

(1) The general condition, including the painting condition, of the drilling derricks is to be examined as far as accessible.

(2) Bolt tightness is to be examined as far as accessible.

(3) It is to be confirmed that escape routes are maintained in a safe condition and clear of obstacles.

(4) In cases where welded connections are repaired, repaired parts of welds are to be subject to non-destructive tests.

B12.5 Special Surveys

B12.5.2 Special Surveys for Hull, Equipment, Fire Extinguishing Systems, and Fittings

Sub-paragraph -5 has been added as follows.

5 In cases where welded connections are repaired, repaired parts of welds are to be subject to non-destructive tests.

B15 SURVEYS FOR WORK-SHIPS

B15.2 Classification Surveys during Construction

Paragraph B15.2.1 has been deleted.

~~**B15.2.1 General**~~

~~For the support ships of submersibles, a detailed examination and tests of the supporting system are to be carried out. Overhaul examinations and load tests are to be conducted for the lifting system and towing system, if considered necessary by the Surveyor.~~

Paragraph B15.2.2 has been amended as follows.

B15.2.2 Submission of Plans and Documents

1 For the purpose of **15.2.2-1** and **-2**, **Part B of the Rules**, at least the following plans and documents regarding work-related installations and drawings indicating the construction of the part of the hull where the work-related installations are installed are to be submitted to the Society. In addition, in cases where deemed necessary by the Society, additional plans and documents may be requested depending on the operations, etc. of such ships.

(Omitted)

(8) Wind turbine installation ships

(a) Plans and documents for approval

i) Arrangement of cargo gears such as cranes, boom rests, etc.

ii) Details for the supporting structures of cargo gear such as cranes, boom rests, etc.

iii) Arrangement of pile driving equipment

iv) Details for the supporting structures of pile driving equipment

(b) Plans and documents for reference

i) Calculation sheets for the supporting structures of cargo gears such as cranes, boom rests, etc.

ii) Calculation sheets for the supporting structures of pile driving equipment

(~~8~~9) Support ships of submersibles

(a) Plans and documents for approval

i) Arrangement of the supporting installations on support units

ii) Towing arrangement

iii) Lifting installation arrangement

iv) Arrangement of communication devices

v) Plans for the position detection system of submersibles

(b) Plans and documents for reference

i) Strength calculation sheets of the towing system

ii) Strength calculation sheets of the lifting system

2 The wording “requirements specified otherwise by the Society” stipulated in **15.2.2-4, Part B of the Rules**, refers to the plans and documents specified in **B2.1.2-5**. For self-elevating ships, the plans specified in **15.2.2-1(4)(a)**, **Part B of the Rules** are to be submitted to the Society in triplicate.

Paragraph B15.2.6 has been added as follows.

B15.2.6 Classification Survey of Ships not Built Under Survey

1 The treatment of the Classification Surveys of Ships not Build under Survey is to be in accordance with **B2.2**.

2 For the support ships of submersibles, a detailed examination and tests of the supporting system are to be carried out. In addition, overhaul examinations and load tests are to be performed on lifting systems and towing systems if deemed necessary by the Surveyor.

B15.3 Annual Surveys

Paragraph B15.3.2 has been added as follows.

B15.3.2 Annual Surveys for Hull, Equipment, Fire Extinguishing Systems, and Fittings

For self-elevating ships, thorough examinations including a non-destructive test of essential structural members deemed necessary by the Society may be required at the first Annual Survey after the date of completion of the Classification Survey During Construction.

EFFECTIVE DATE AND APPLICATION (Amendment 2-8)

1. The effective date of the amendments is 1 May 2012.

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.

3. Notwithstanding the provision of preceding **2.**, the amendments to the Guidance may apply to ships for which the application is submitted to the Society before the effective date upon request by the owner.

Amendment 2-9

B12 SURVEYS FOR MOBILE OFFSHORE DRILLING UNIT AND SPECIAL PURPOSE BARGES

B12.3 Annual Surveys

B12.3.2 Annual Surveys for Hull, Equipment, Fire Extinguishing Systems, and Fittings

Sub-paragraph -2(1)(b) has been amended as follows.

2 For mooring systems specified in **12.3.2-2(1), Part B of the Rules** the following examinations are to be carried out.

(1) Chain cable

(b) Diameter measurement of chain links that are substantially corroded or whose mean diameters measured at the last Special Survey are less than ~~92~~96% of the original
In addition, non-destructive tests, and measurement of the length of 3 links or 5 links and the bending angle of chain links are to be carried out as far as practicable.
Where the results come under the provisions of **B12.5.2-2**, such chain links are to be discarded, and connecting shackles inserted or replaced by new chain links.

B12.5 Special Surveys

B12.5.2 Special Surveys for Hull, Equipment, Fire Extinguishing Systems, and Fittings

Sub-paragraphs -2(1) and (3) have been amended as follows.

2 For mooring systems specified in **12.5.2-2(4), Part B of the Rules** the following examinations are to be carried out.

(1) Chain cable

(a) A thorough inspection of all chain links after cleaning, paying particular attention to large deformations, excessive corrosion, and loose studs

(b) Diameter measurement and non-destructive test (such as magnetic particle test or ultrasonic test) on at least ~~1~~5% of chain links
All chain links in contact with the windlass or fairleads during operation are to have non-destructive tests and diameter measurement carried out. In this case, the nominal diameter and looseness of the stud of the chain link are to be measured.

(c) Non-destructive tests and measurement of the length of 3 links or 5 links of chain links found to have a mean diameter of less than ~~92~~96% of the original diameter as a result of diameter measurement
Where the links have deformed, the bending angle of the chain links are to be measured as far as practicable (see **Fig. B12.5.2-2(1)** and **(2)**).

(d) Where the results of **(a)** to **(c)** above comply with those specified in **(i)** to **(vi)** below, such chain links are to be discarded, and connecting shackles inserted or replaced by new

chain links. The number of inserted connecting shackles is not to exceed one per ~~120~~122 *m* of chain length.

i) The mean diameter of the chain link is less than ~~90~~95% of the original diameter as a result of diameter measurement

ii) The stud (of the chain link) is lost

iii) The stud exceeds the values specified in **1)** to **3)** (For Grades R4, R4S and R5 chains, however, all these values are to be 1 *mm*)

1) Looseness of stud in longitudinal direction of chain link: 4 *mm*

2) Clearance between stud and chain link: 3 *mm*

3) Out of plane deformation of chain link (gap between the centreline of the stud and the centreline of the chain link): 3 *mm*

iv) The bending angle out of plane of the chain link exceeds 3 *degrees*

v) The elongation rate of 5 links or 3 links of chain exceeds 2.5%

vi) Other abnormal defects are found

(e) (Omitted)

(f) Where the depth of wear and grooving on chain links do not exceed ~~7~~5% of the diameter of the chain link, these defects are to be removed by grinding the surface down. The new surface is not to be less than ~~90~~95% of the original diameter and welding can be used to smooth the shape as shown in **Fig. B12.5.2-2(4)**. However, welding is not to be used on Grades R4, R4S and R5 chains.

(2) Wire rope

(Omitted)

(3) Anchor

(a) A thorough examination of the anchor crown, palm, and shank is to be carried out. Where the bent palm and shank are repaired, the procedure for repair is to be submitted for approval by the Society, and a non destructive test is to be carried out upon repair.

(b) Shackle pins and head pins are to be examined and renewed if excessively worn or bent.

EFFECTIVE DATE AND APPLICATION (Amendment 2-9)

1. The effective date of the amendments is 1 May 2012.

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.