RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

Part B Class Surveys

2017 AMENDMENT NO.2

Rule No.29 1st June 2017

Resolved by Technical Committee on 30th January 2017

Approved by Board of Directors on 20th February 2017

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

Rule No.29 1st June 2017
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 SURVEYS

2.1 Classification Survey during Construction

2.1.2 Submission of Plans and Documents for Approval*

Sub-paragraph -1(5) has been amended as follows.

1 When it is intended to build a ship for classification by the Society, the following plans and documents are to be submitted for the approval by the Society 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) to (4) are omitted.)
(5) Plans and documents for in-water surveys specified in **6.1.2-~~2~~3**
(6) Other plans and documents not specified in **(1)** through **(5)** which are deemed necessary by the Society

2.1.6 Documents to be Maintained On Board*

Sub-paragraphs -1(1) and -2(7) have been amended as follows.

1 At the completion of a classification survey, the Surveyor confirms that the finished versions of the following applicable drawings, plans, manuals, lists, etc., are on board.
(1) Documents approved by the Society or their copies
((a) to (o) are omitted.)
(p) Plans and documents for in-water surveys (**6.1.2-~~2~~3**)
2 In addition to the requirements in **-1** above, for ships engaged on international voyages, the Surveyor confirms that the Ship Construction File contains the necessary documents from the following drawings, plans, manuals and documents, and that the Construction File is on board the ship. Duplicate documents as in **-1** are not required.
(7) Plans and documents for in-water surveys (**6.1.2-~~2~~3**)

Chapter 6 DOCKING SURVEYS

6.1 Docking Surveys

Paragraph 6.1.2 has been amended as follows.

6.1.2 In-water Surveys*

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 15 *years* of age and over

2 In applying **-1** above, consecutive In-water Surveys are not to be accepted in lieu of Surveys in dry dock or on slipway. However, In-water Surveys may be consecutively carried out in lieu of Surveys in dry docks or on slipways for ships other than these specified in the following **(1)** to **(4)** subject to the prior approval of the Society and the Administration:

(1) Ships with the class notation "*Enhanced Survey Programme*" (abbreviated to *ESP*);

(2) General dry cargo ships;

(3) Ships fitted with propulsion thrusters; and

(4) Ships where the propeller connection to the shaft is by means of a keyed taper.

~~**2**~~**3** The following plans and documents are to be included as part of a submission to the Society for approval for conducting In-water Surveys, which is to be obtained prior to commencement.

(1) Plans of shell plating below the waterline showing details of the location and sizes of shell openings, location of bottom plugs, location of bilge keels, location of water- and oil-tight bulkheads, location of welded seams and butts and location of anodes

(2) Detailed information or drawings of constructions and arrangements indicated in **-3** below, together with their colour photographs, and detailed instructions for inspection of such constructions and arrangements

(3) Documents showing the procedure which enables the Surveyor to confirm the clearance of the rudder bearing or the condition of the stern tube bearing based on a review of the operating history, the onboard testing or analysis of sampled stern lubricating oil or lubricating freshwater.

Where the bearing is found to be satisfactory, special consideration may be given to the requirements in **-3(1)** or **-3(4)** below.

(4) Other data which may serve the inspections

~~**3**~~**4** Ships intended to be subjected to the In-water Survey are to comply with the following. Where the documents specified in **-2(3)** above are submitted, special consideration may be given to **(1)** or **(4)** below.

((1) to (7) are omitted.)

~~**4**~~**5** The Surveyor may require internal examinations or dry dock surveys where deemed necessary as a result of the In-water Survey.

Table B6.1 has been amended as follows.

Table B6.1 Requirements for Docking Surveys

Items	Examinations
(1 to 8 are omitted.)	
9 Installations for In-water Surveys	・With regard to ships having the approval for conducting In-water Surveys based on the requirements in **6.1.2**, Surveyors are to confirm that the means and installations specified in **6.1.2-~~3~~4** are in good condition.

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 June 2017.

Amendment 2-2

Chapter 5 SPECIAL SURVEYS

5.3 Special Surveys for Machinery

Paragraph 5.3.1 has been amended as follows.

5.3.1 General Examinations*

At Special Surveys for Machinery, in addition to the general examination and inspections specified in **3.3.1**, the verification runs specified in **1.1.9-1.** and the surveys specified in **Table B5.25** are to be carried out.

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 June 2017.

2. Notwithstanding the amendments to the Rules, the current requirements apply to the surveys for which the application is submitted to the Society before the effective date.

Amendment 2-3

Chapter 1 GENERAL

1.3 Definitions

1.3.1 Terms*

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

The definitions of terms which appear in this Part are as specified in the following. Terms not define here are as defined in other parts of the Rules.

(1) ”Ballast tank” is a tank which is being used solely for water ballast. For a space which is used for both cargo and water ballast, the followings requirements of **(a)** and **(b)** below are applied.
   (a) The space is treated as a Ballast Tank when substantial corrosion has been found ~~by internal examination of~~ in that space.
   (b) For oil tankers and ships carrying dangerous chemicals in bulk, the tanks used for the carriage of cargo or ballast water as a routine part of the vessel’s operation are treated as Ballast Tanks. Cargo tanks in which water ballast might be carried only in exceptional cases per **MARPOL Annex I/18.3** are to be treated as cargo tanks.

Chapter 3 ANNUAL SURVEYS

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

3.2.3 Performance Tests*

At Annual Surveys, performance tests listed in **Table B3.3** are to be carried out.

Table B3.3 has been amended as follows.

Table B3.3 Performance Tests

Items	Tests
1 Weathertight hatch covers	・ Hose test ~~listed in **Table B2.2**~~ (when deemed necessary by the Surveyor) ・ Random checking of the satisfactory operation of mechanically operated hatch covers including hydraulic and power components, wires, chains and link drives ・ For mechanically operated hatch covers on bulk carriers, hatch cover sets within the forward $0.25L_f$ and at least one additional set, including hydraulic and power components, wires, chains and link drives, are to be checked for satisfactory operation so that all sets on the ship are checked at least once every *5 years* between special surveys
2 Closing appliances of watertight door on watertight bulkheads and openings on superstructure end bulkheads, deckhouses or companions protecting hatchways giving access to spaces below freeboard deck	・ Checking whether the appliances work in good order is to be made as deemed necessary by the Surveyor. ・ Hose tests ~~listed in **Table B2.2**~~ or equivalent tests are to be carried out. Such tests may be dispensed with at the discretion of the Surveyor.
3 Appliances related to fire protection and escape	・ Checking whether the appliances work in good order is to be carried out.
4 Fire detection system and fire alarm system including manually operated call points	・ Checking whether the systems work in good order (including proper operation of malfunction indicator) is to be made.
5 Fire pumps (including emergency fire pumps) piping, hydrants, hoses, nozzles etc.	・ Performance test of the fire fighting system composed of fire pump, hydrants, etc. is to be carried out. For ships with fire pumps in periodically unattended machinery spaces, an operation test of the remote control system or automatic operation system of one pump is to be carried out.
6 Fixed deck foam system	・ Checking whether the system works in good order is to be carried out by delivering water.
7 Ventilation system	・ Checking whether the system works in good order is to be carried out.
8 Stability Computer	・ A performance test is to be carried out on computers for stability calculation that are installed as a supplement to the stability information booklet on board ships contracted for construction on or after 1 July 2005.
9 Water level detection and alarm systems	・ Checking whether the systems work in order is to be made at random.
10 Dewatering arrangements	・ Checking whether the systems work in order is to be made.
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)

Chapter 4 INTERMEDIATE SURVEYS

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

4.2.3 Performance Tests*

At Intermediate Surveys, performance tests listed in **Table B4.1** are to be carried out.

Table B4.1 has been amended as follows.

Table B4.1 Performance Test

Items	Tests
1 Equipment or installations of items in **Table B3.3** (except item 2)	・ Tests for each item specified in **Table B3.3** are to be carried out.
2 Doors on watertight bulkheads and closing appliances on superstructure end bulkheads, deckhouses or companions protecting hatchways giving access to spaces below freeboard deck	・ Confirmation that the doors and closing appliances work in order is to be made. ・ Hose tests ~~listed in **Table B2.2**~~ or equivalent tests are to be carried out. Such tests may be dispensed with at the discretion of the Surveyor.
3 Drainage, mooring and anchoring arrangements and their accessories	・ Confirmation that the arrangements work in order is to be made. This check may be dispensed with at the discretion of the Surveyor.
(Omitted)	
12 Closing appliances of openings related to fire fighting in way of cargo holds	・ Confirmation that closing appliances work in order is to be made.
Additional Requirements for Bulk Carriers	
13 Mechanically operated hatch covers	・ Confirmation that hatch cover sets within the forward $0.25L_f$ and at least one additional set work in good order is to be carried out. The method is to be in a way that ensures all sets on the ship are checked at least once every 5 *years* between special surveys. ・ Confirmation that all hatch covers work in good order is to be carried out for ships over 10 years of age.
14 Weathertight hatch covers	・ Hose tests ~~listed in **Table B2.2**~~ or equivalent, for all hatch covers for ships over 10 *years* of age.
15 Water level detection and alarm systems	・ Confirmation that the systems work in order is to be made for ships over 10 *years* of age.

Chapter 5 SPECIAL SURVEYS

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

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 **(10)** below are to be carried out.

(1) Operation test for all mechanically operated hatch covers, including the testing of all hydraulic and power components, wires, chains and link drives
(2) Hose tests ~~listed in **Table 2.2**~~ 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
(5) The hose tests ~~listed in **Table 2.2**~~ or equivalent tests, for the doors of watertight bulkheads and the closing appliances of superstructure end bulkheads, deckhouses or companions protecting hatchways giving access to spaces below freeboard deck
(6) 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
(7) 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
(8) 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
(9) Performance tests listed in item 1 of **Table B4.1,** for all water level detection and alarm systems.
(10) Performance test for the means of embarkation and disembarkation, for ships not less than 500 *gross tonnage* which are engaged on international voyages.

5.2.4 Internal Examinations of Spaces and Tanks*

Sub-paragraphs -4 to -6 have been deleted as follows.

1 At Special Surveys, examinations of structures and fittings such as piping in tanks and spaces are to be carried out carefully paying due attention to items **(1)** through **(7)** below.

(1) Areas sensitive to corrosion (on parts such as structural members, piping, and hatch covers) in cargo holds where cargoes highly corrosive to steel such as logs, salt, coal, and sulphide ore have been loaded
(2) Areas sensitive to deterioration by heat such as plating under boilers
(3) Structurally discontinuous portions such as corners of hatchway openings on deck, openings (including side scuttles), cargo port, etc. on shell
(4) Condition of coating and corrosion prevention system if applied
(5) Condition of striking plates under sounding pipes
(6) Condition of deck covering (e.g. cement)
(7) Locations on which defects such as cracking, buckling, and corrosion have been found in similar ships or similar structures

2 At Special Surveys, internal examinations of tanks or spaces listed in **Table B5.1** are to be carried out paying attention to the items in **-1** above.

3 At Special Surveys for tankers and ships carrying dangerous chemicals in bulk with integral tanks, in addition to **-1** and **-2** above, an internal examination of tanks and spaces listed in **Table B5.2** is to be carried out. Tanks and spaces identified as suspect areas at previous surveys are to be examined. The examination of the coating condition in ballast tanks for oil tankers and ships carrying dangerous chemicals in bulk is to be based on the coating criteria defined by the Society. However, for ships carrying dangerous chemicals in bulk, stainless steel tanks may be exempted from internal examinations where deemed appropriate by the Society.

~~**4** At Special Surveys for ships carrying liquefied gases in bulk, in addition to **-1** and **-2** above, an internal examination of tanks and spaces listed in **Table B5.2** is to be carried out.~~

~~**5** At Special Surveys for bulk carriers, in addition to **-1** and **-2** above, an internal examination of tanks and spaces listed in **Table B5.3** is to be carried out. Tanks and spaces identified as suspect areas at previous surveys are to be examined.~~

~~**6** At Special Surveys for general dry cargo ships of not less than 500 *gross tonnage*, in addition to **-1** and **-2** above, an internal examination of tanks and spaces listed in **Table B5.4** is to be carried out.~~

Table B5.1 has been amended as follows.

Table B5.1 Internal Examinations of Tanks and Spaces

Special Survey	Tanks and spaces subject to examination	Note
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	• Cargo holds • Cofferdams • Ballast tanks • Cargo tanks (other than those of tankers, ships carrying liquefied gases in bulk and ships carrying dangerous chemicals in bulk) • Peak tanks • Machinery spaces and other spaces	• Ballast tanks (excluding double bottom tanks) where the protective coating is found in poor condition and it is not renewed or where a protective coating has not been applied, internal examinations are to be carried out at annual intervals. For double bottom ballast tanks in this condition, internal examinations are to be carried out at annual intervals where considered necessary by the Surveyor. • For holds insulated for the carriage of refrigerated cargo, the limber boards and the cover plates are to be removed and an examination of the inside is to be carried out. In addition, an examination behind the insulation is to be carried out at representative locations. The examination may be limited to verification that the protective coating remains effective and that there are no visible structural defects. Where POOR coating condition is found, the examination is to be extended as deemed necessary by the Surveyor.
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	• Tanks and spaces subject to examination carried out at Special Survey No.1 • Fresh water tanks • Fuel oil tanks in cargo areas for tankers or in cargo length areas for other ships	• If fresh water tanks and fuel oil tanks have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced to just one selected tank respectively. Notwithstanding the above, peak tanks are to be subject to internal examinations at each Special Survey.
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	• Tanks and spaces subject to examination carried out at Special Survey No.2 • Fuel oil tanks	• For fuel oil tanks: (1) If fuel oil tanks in cargo areas for tankers or in cargo length areas for other ships have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced to just two selected tanks. In cases where deep fuel oil tanks are provided, one or more deep tanks are to be included in this scope. (2) If fuel oil tanks other than those mentioned in (1) have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced to just one tank selected from those in engine rooms. Notwithstanding the above, peak tanks are to be subject to internal examinations at each Special Survey.
Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	• Tanks and spaces subject to examination carried out at Special Survey No.3 • Lubricating oil tanks	• For fuel oil tanks: (1) If fuel oil tanks in cargo areas for tankers or in cargo length areas for other ships have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced to half of the selected tanks, but not less than two tanks. In cases where deep fuel oil tanks are provided, one or more deep tanks are to be included in this scope. (2) If fuel oil tanks other than those mentioned in (1) have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced to just one tank selected

		~~from those in engine rooms. Notwithstanding the above, peak tanks are to be subject to internal examinations at each Special Survey.~~ ~~・ If lubricating oil tanks have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced to just one selected tank. Notwithstanding the above, peak tanks are to be subject to internal examinations at each Special Survey.~~

Special Survey	Tanks and spaces subject to examination
Special Survey for ships up to 5 *years* of age (Special Survey No. 1)	・ All tanks and spaces (other than cargo tanks of ships carrying liquefied gases in bulk), except for fuel oil tanks, lubricating oil tanks and fresh water tanks which are not peak tanks.
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No .2)	・ All tanks and spaces (other than cargo tanks of ships carrying liquefied gases in bulk as well as fuel oil tanks in engine rooms and lubricating oil tanks which are not peak tanks) However, if fuel oil tanks and fresh water tanks which are not peak tanks have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced. In such cases, internal examinations are to be carried out on the following tanks for at least the designated number of tanks: (1) Fuel oil tanks fitted within cargo length areas (within cargo areas for tankers): 1 tank (2) If no fuel oil tanks are fitted within cargo length areas (within cargo areas for tankers), fuel oil tanks fitted at locations other than engine rooms (if fitted): 1 tank (3) Fresh water tanks: 1 tank
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No. 3)	・ All tanks and spaces (other than cargo tanks of ships carrying liquefied gases in bulk and lubricating oil tanks which are not peak tanks) However, if fuel oil tanks which are not peak tanks have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced. In such cases, internal examinations are to be carried out on the following tanks for at least the designated number of tanks: (1) Fuel oil tanks fitted within engine rooms: 1 tank (2) Fuel oil tanks fitted within cargo length areas (within cargo areas for tankers): 2 tanks (In cases where deep fuel oil tanks are provided, one or more deep fuel oil tanks are to be included.) (3) If no fuel oil tanks are fitted within cargo length areas (within cargo areas for tankers), fuel oil tanks fitted at locations other than engine rooms (if fitted): 1 tank
Special Survey for ships over 15 *years* of age (Special Survey No. 4 and subsequent Special Surveys)	・ All tanks and spaces (other than cargo tanks of ships carrying liquefied gases in bulk) However, if fuel oil tanks and lubricating oil tanks which are not peak tanks have had external examinations and the Surveyor is satisfied that they are in good condition, the scope of any internal examinations may be reduced. In such cases, internal examinations are to be carried out on the following tanks for at least the designated numbers of tanks: (1) Fuel oil tanks fitted within engine room: 1 tank (2) Fuel oil tanks fitted within cargo length areas (for tankers, within cargo areas): half the total number of tank, but not less than 2 tanks. (in cases where deep fuel oil tanks are provided, one or more deep tanks are to be included.) (3) If no fuel oil tanks are fitted within cargo length areas (within cargo areas for tankers), fuel oil tanks fitted at location other than engine rooms (if fitted): 2 tanks (4) Lubricating oil tanks: 1 tank

Notes:

- ・ Ballast tanks (excluding double bottom tanks) where the protective coating is found in poor condition and has not been renewed or where a protective coating has not been applied, internal examinations are to be carried out at annual intervals. For double bottom ballast tanks in this condition, internal examinations are to be carried out at annual intervals where considered necessary by the Surveyor.
- ・ For holds insulated for the carriage of refrigerated cargo, limber boards and cover plates are to be removed and an

examination of the inside is to be carried out. In addition, an examination behind the insulation is to be carried out at representative locations. The examination may be limited to verification that the protective coating remains effective and that there are no visible structural defects. Where the protective coating is found to be in a poor condition, the examination is to be extended as deemed necessary by the Surveyor.

・ Ballast tanks converted to void spaces are to be examined in accordance with the provisions for ballast tanks.

Table B5.2 has been amended as follows.

Table B5.2 Additional Requirements of Internal Examinations for Tankers~~,~~ and Ships Carrying Dangerous Chemicals in Bulk ~~and Ships Carrying Liquefied Gases in Bulk~~

Special Survey	Tanks and spaces subject to examination	Notes
All Special Surveys	1 All cargo tanks~~(excluding those in ships carrying liquefied gases in bulk)~~	・ For oil tankers, combined cargo/ballast tanks, if any, are to be examined carefully taking account of ballast history and the extent of the corrosion prevention system provided. ・ For oil tankers, condition of the inner surface of the bottom plating of the tank is to be examined carefully in order to ascertain that the there is no excessive pitting of the plating. ・ For oil tankers, bell mouths of the cargo suction pipes are to be removed and the bottom plating of the tank and bulkheads in that vicinity are to be examined as considered necessary by the Surveyor.
	2 All ballast tanks and pump rooms ~~, and all tanks and spaces adjacent to cargo tanks (pump rooms, cargo compressor rooms, pipe tunnels, cofferdams and void spaces)~~	~~For tankers and ships carrying dangerous chemicals in bulk:~~ ・ As a result of internal examinations, ballast tanks with conditions shown in (a) to (c) require an internal examination to be carried out at annual intervals. (a) The protective coating is found to be in less than GOOD condition and is not repaired to the satisfaction of the Surveyor. (b) The protective coating has not been applied from the time of construction or the soft coating has been applied (the examination is to be extended to other ballast tanks of the same type) (c) Substantial corrosion is found within the tanks ・ An internal examination of the pump room is to be carried out carefully paying attention to the sealing arrangements of all penetrations of bulkheads, ventilating arrangements, foundations and gland seals of pumps. ~~For ships carrying liquefied gases in bulk:~~ ~~・ For ballast tanks, excluding double bottom tanks, where a protective coating is found in poor condition, and it is not renewed or where a protective coating has not been applied from the time of construction, an internal examination is to be carried out at annual intervals. For ballast double bottom tanks with the condition as specified, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals.~~ ~~・ Ballast tanks converted to void spaces are to be examined applying the provisions for ballast tanks correspondingly.~~

Table B5.3 has been deleted.

Table B5.3 ~~Additional Requirements of Internal Examinations for Bulk Carriers~~ (Deleted)

~~Special Survey~~	~~Tanks and spaces subject to examination~~	~~Notes~~
~~All Special Surveys~~	~~1 All ballast tanks, and all tanks and spaces adjacent to cargo holds (pipe tunnels, cofferdams and void spaces)~~	~~• For ballast tanks, excluding double bottom tanks, where the protective coating is found in poor condition, and is not renewed or where a protective coating has not been applied from the time of construction, an internal examination is to be carried out at annual intervals. For ballast double bottom tanks in this condition, an internal examination is to be carried out at annual intervals where considered necessary by the Surveyor.~~ ~~• Ballast tanks converted to void spaces are to be examined applying the provisions for ballast tanks.~~

Table B5.4 has been deleted.

Table B5.4 ~~Additional Requirements of Internal Examinations for General Dry Cargo Ships of Not less than 500 *gross tonnage*~~ (Deleted)

~~Special Survey~~	~~Tanks and spaces subject to examination~~	~~Notes~~
~~All Special Surveys~~	~~1 All cargo holds~~	
	~~2 All ballast tanks, and all tanks and spaces adjacent to cargo holds (pipe tunnels, cofferdams and void spaces)~~	~~• For ballast tanks where the protective coating is found in poor condition, and is not renewed or where a protective coating has not been applied, excluding double bottom tanks, an internal examination is to be carried out at annual intervals. For double bottom ballast tanks in this condition, an internal examination is to be carried out at annual intervals where considered necessary by the Surveyor.~~ ~~• Ballast tanks converted to void spaces are to be examined applying the provisions for ballast tanks.~~

Notes of Table B5.6-1 have been amended as follows.

Table B5.6-1 Requirements of Close-up Surveys for Bulk Carriers (Excluding Ore Carriers)

Special Survey	Structural members subject to Close-up Survey
Requirements for Bulk Carriers other than Double Skin Bulk Carriers[*1]	
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. A sufficient number (at least 1/4 of the total number) of shell frames at the forward, middle, and aft parts on both sides of forward cargo holds and selected frames in remaining cargo holds (A) 2. Two selected cargo hold transverse bulkheads (including stiffeners and girders) (C) 3. One transverse web with associated plating and longitudinals in two representative ballast tanks of each type (topside or bilge hopper tank) (B) 4. Air pipes and sounding pipes in cargo holds in way of tank top 5. All hatch cover plating, hatch coaming plating, and stiffeners
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. All shell frames in forward cargo hold and a sufficient number (at least 1/4 of the total number for ships less than 100,000 DWT and at least 1/2 of the total number for ships of 100,000 DWT or more) of shell frames in each of the remaining cargo holds including their end attachments and adjacent shell plating (A) 2. All transverse bulkheads (including stiffeners and girders) in all cargo holds (C) 3. One transverse web with associated plating and longitudinals in each ballast tank (B) 4. Both forward and aft transverse bulkheads (including stiffeners and girders) in one ballast tank (B) 5. All deck plating and under deck structure inside the line of hatch openings between cargo hold hatches 6. All piping arrangements in cargo holds. If the surveyor considers it necessary, airtight tests are to be carried out. 7. All hatch cover plating, hatch coaming plating, and stiffeners
Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. All shell frames in the forward and one other selected cargo holds and a sufficient number (at least 1/2 of the total number) of shell frames in each of the remaining cargo holds including their end attachments and adjacent shell plating (A) 2. All transverse bulkheads (including stiffeners and girders) in all cargo holds (C) 3. All transverse webs with associated plating and longitudinals and all transverse bulkheads (including stiffeners and girders) in each ballast tank (B) 4. Structural members specified in 5. to 7. of Special Survey No.2 above
Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	1. All shell frames in all cargo holds including their end attachments and adjacent shell plating (A) 2. Structural members specified in 2. to 4. of Special Survey No.3 above
Requirements for Double Skin Bulk Carriers (excluding Ore Carriers)	
Special Survey for ships up to 5 *years* of age (Special Survey No.1)	1. Two selected cargo hold transverse bulkheads (including stiffeners and girders) (C) 2. One transverse web with associated plating and longitudinals in two representative ballast tanks of each type (this is to include the foremost topside and double side ballast tanks on either side) (B) 3. Air pipes and sounding pipes in cargo holds in way of tank top 4. All hatch cover plating, hatch coaming plating, and stiffeners
Special Survey for ships over 5 *years* and up to 10 *years* of age (Special Survey No.2)	1. One transverse bulkhead in each cargo hold (including stiffeners and girders) (C) 2. One transverse web with associated plating and longitudinals in each ballast tank (B) 3. Both forward and aft transverse bulkheads (including stiffeners and girders) in a transverse section including topside, bilge hopper and double side ballast tanks on one side of the ship (B) 4. A sufficient number (at least 1/4 of total number) of stiffeners (ordinary transverse frames for transverse framing systems or longitudinals for longitudinal framing systems) on side shell and longitudinal bulkhead at forward, middle, and aft parts on both sides of the foremost double side tanks (A) 5. All deck plating and under deck structure inside the line of hatch openings between cargo hold hatches 6. All piping arrangements in cargo holds. If the surveyor considers it necessary, airtight tests are to be carried out. 7. All hatch cover plating, hatch coaming plating, and stiffeners

Special Survey for ships over 10 *years* and up to 15 *years* of age (Special Survey No.3)	1. All transverse bulkheads (including stiffeners and girders) in all cargo holds (C) 2. All transverse webs with associated plating and longitudinals and all transverse bulkheads (including stiffeners and girders) in each ballast tank (B) 3. A sufficient number (at least 1/4 of total number) of stiffeners (ordinary transverse frames for transverse framing systems or longitudinals for longitudinal framing systems) on side shell and longitudinal bulkhead at forward, middle, and aft parts on both sides of all double side tanks (A) 4. Structural members specified in 5. to 7. of Special Survey No.2 above
Special Survey for ships over 15 *years* of age (Special Survey No.4 and subsequent Special Surveys)	1. All stiffeners (ordinary transverse frames for transverse framing systems or longitudinals for longitudinal framing systems) on side shell and longitudinal bulkhead in all double side tanks (A) 2. Structural members specified in 1., 2. and 4. of Special Survey No.3 above

Notes:

(1) A double side tank of double skin bulk carriers is to be considered as a separate tank even if it is in connection to either the topside tank or the bilge hopper tank.

(~~1~~2) Letters in this table mean:

(A): Cargo hold transverse frames, or stiffeners (ordinary transverse frames for transverse framing systems or longitudinals for longitudinal framing systems) on side shell or longitudinal bulkhead in double side tanks

(B): Transverse web ~~frame ring~~ or watertight transverse bulkhead in fore and aft peak, topside, bilge hopper ~~and~~, double side ballast tanks and double bottom tanks including adjacent structural members

(C): Including plating and internal structures of lower and upper stools, where fitted

(~~2~~3) Close-up Surveys of transverse bulkheads are to be carried out at least at four levels as specified as follows:

(i) Immediately above the inner bottom and immediately above the line of gussets (if fitted) and shedders for ships without lower stool.

(ii) Immediately above and below the lower stool shelf plate (for those ships fitted with lower stools), and immediately above the line of the shedder plates.

(iii) About mid-height of the bulkhead.

(iv) Immediately below the upper deck plating and immediately adjacent to the upper wing tank, and immediately below the upper stool shelf plate for those ships fitted with upper stools, or immediately below the topside tanks.

~~(3) A double side tank of double skin bulk carriers is to be considered as a separate tank even if it is in connection to either the topside tank or the bilge hopper tank.~~

*1: For bulk carriers with hybrid cargo hold arrangements, that is, 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.

Chapter 6 DOCKING SURVEYS

6.1 Docking Surveys

6.1.1 Surveys in Dry Dock or on Slipway*

At Docking Surveys, examinations listed in **Table B6.1** are to be carried out in the dry dock or on the slipway after cleaning the outer shell.

Table B6.1 has been amended as follows.

Table B6.1 Requirements for Docking Surveys

Items	Examinations
1 Shell plating including keel plate, stem and stern frame	・Discontinuous structures, structural parts liable to excessive corrosion and openings in the shell are to be examined carefully. Grillage covers are to be removed where deemed necessary by the Surveyor.
2 Rudder	・The rudder is to be lifted or removed and visible parts of the rudder, rudder pintles, gudgeons, rudder stocks and couplings and stern frame are to be examined. Where applicable, a pressure test of the rudder ~~according to **Table B2.2**~~ may be required as deemed necessary by the Surveyor. The rudder bearing clearance is to be measured. The rudder may not require lifting or removal provided the Surveyor is satisfied with the condition of the rudder by measurement of the clearance.
3 Scupper, overboard discharges and sea inlets including distance pieces below freeboard deck, and valves and cocks on shell plating, sea chest or distance piece, and side thrusters	・The main parts of valves and cocks are to be opened up and examined. The bolts or studs fastening these mountings to the hull are to be examined. The valves and cocks may not require open-up examination at the discretion of the Surveyor provided they were opened up and found to be in good order at the last Docking Survey. ・In cases where consecutive In-water Surveys in lieu of Docking Surveys conducted in dry dock or on slipway may be applied with Administration approval, the open-up examination of valves and cocks required may be exempted at the discretion of the Society provided they were examined (including visual inspection by diver) and found to be in good order. ・Side thrusters are to be visually examined for any damage which may affect the hull structure.
(Omitted)	

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 July 2017.

2. Notwithstanding the amendments to the Rules, the current requirements apply to the surveys for which the application is submitted to the Society before the effective date.

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

Amendment 2-4

Chapter 2 CLASSIFICATION SURVEYS

2.1 Classification Survey during Construction

2.1.6 Documents to be Maintained On Board*

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

1 At the completion of a classification survey, the Surveyor confirms that the finished versions of the following applicable drawings, plans, manuals, lists, etc., are on board.

(2) Other documents

((a) to (s) are omitted)

(t) Total Harmonic Distortion (THD) calculation report (**1.1.6, Part H**)

(u) Harmonic filter operation guide (**1.1.6, Part H**)

2.3 Sea Trials and Stability Experiments

2.3.1 Sea Trials*

Sub-paragraph -1 has been amended as follows.

1 In the Classification Survey of all ships, sea trials specified in following **(1)** to **(~~12~~13)** are to be carried out in full load condition, in the calmest possible sea and weather condition and in deep unrestricted water. However, where sea trials cannot be carried out in full load condition, sea trials may be carried out in an appropriate loaded condition. The noise measurements specified in **(11)** are to be carried out at either the full load condition or the ballast condition.

(1) Speed test
(2) Astern test
(3) Steering test and the change-over test from the main to auxiliary steering gears
(4) Turning test. The turning test of an individual ship may be dispensed with, provided that sufficient data is available from the turning test of a sister ship and subject to special approval by the Society.
(5) Confirmation of no abnormality for the operating condition of machinery and behaviour of the ship during the trials
(6) Performance test of windlasses
(7) Performance test of automatic and remote control systems for main propulsion machinery, controllable pitch propellers, boilers and electric generating sets
(8) Accumulation test of boilers
(9) Measurement of torsional vibration for the shafting systems
(10) Measurement of the sound pressure levels of fixed fire detection and fire alarm systems
(11) Noise measurements
(12) Verification of Total Harmonic Distortion (THD) calculation report and harmonic filter operation guide
(~~12~~13) Other tests where deemed necessary by the Society

EFFECTIVE DATE AND APPLICATION (Amendment 2-4)

1. The effective date of the amendments is 1 July 2017.

2. Notwithstanding the amendments to the Rules, the current requirements apply to ships for which the date of contract for construction* is before the effective date and that are not newly fitted with harmonic filters on or after 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 2-5

Chapter 7 BOILER SURVEYS

7.1 Boiler Surveys

Table B7.1 has been amended as follows.

Table B7.1 Requirements of Boiler Survey

Items	Examinations
1 Pressure parts of boilers	To be internally examined with the manholes, cleaning holes and inspection holes dismantled. Where considered to be necessary for external examination by the Surveyor, the parts are to be examined to the Surveyor's satisfaction with the insulation around the parts removed.(2)
2 Superheaters, economizers and exhaust gas economizers	To be examined internally and externally. For exhaust gas economizers of the shell type, all accessible welded joints are to be subject to a visual examination for cracking and non-destructive testing may be requested where deemed necessary by the Surveyor.(2)
3 Combustion parts of boilers and thermal oil heaters(1)	The furnaces, combustion chambers, combustion gas chambers, etc. are internally examined with their doors opened.(2)
4 Valves and cocks	The principal mountings and their fastening bolts or studs are to be opened up and examined.
5 Thickness of plates and tubes and size of stays	To be measured where deemed necessary by the Surveyor.
6 Safety valves and relevant parts of boilers, superheaters and thermal oil heaters(1)	The safety valves are to be adjusted under steam to a pressure not more than 103 % the approved working pressure after the open-up examination. The pressure gauge used for this adjustment is to be calibrated properly. The relieving gears of the valves are to be examined and tested to verify satisfactory operation. However, for exhaust gas economizers, if steam cannot be raised at port, the relief valves may be set by the chief engineer at sea, and the results recorded in the logbook for review by the Surveyor. The general conditions of relief pipes for thermal oil heaters are to be examined. The popping pressure of safety valves fitted on thermal oil heaters is to be ascertained.
7 Safety devices, alarm devices and automatic combustion control devices	These devices are to be tested in accordance with the requirements in **Chapter 9, Part D** of the Rules in order to ascertain that they are in good working conditions after the above examinations.
8 Review of the records of the logbook	Review of the following records since last boiler survey is to be carried out. (1) Operation (2) Maintenance (3) Repair history (4) Quality control of the feed water or thermal oil

Notes:

(1) Only applies to thermal oil heaters heated by fire, combustion gas or exhaust gas from machinery.

(2) When direct visual internal inspection is not feasible due to the limited size of the internal spaces, such as for small boilers and/or narrow internal spaces, this may be replaced by a hydrostatic pressure test or by alternative verifications as deemed appropriate by the Society.

EFFECTIVE DATE AND APPLICATION (Amendment 2-5)

1. The effective date of the amendments is 1 July 2017.

2. Notwithstanding the amendments to the Rules, the current requirements apply to the surveys for which the application is submitted to the Society before the effective date.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE

Part B Class Surveys

2017 AMENDMENT NO.2

Notice No.27 1st June 2017

Resolved by Technical Committee on 30th January 2017

Notice No.27 1st June 2017
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

B2.3.2 Stability Experiments

Sub-paragraphs -4 to -6 have been amended as follows.

1 Stability experiments stated in **2.3.2-1, Part B of the Rules** refer to inclining tests and oscillation tests.
2 **Annex B2.3.2-2** gives the standard method for inclining tests stipulated in **-1** above.
3 Among the particulars of stability stated in **2.3.2-1, Part B of the Rules**, the rolling period is to be determined by the oscillation test. However, upon special approval by the Society, the oscillation test may be dispensed with and the rolling period may be determined by an approximate calculation.
4 The booklet required in **2.3.2, Part B of the Rules** is to be as follows according to the specifics of the ship.
(1) For ships complying with **Part U of the Rules**, the booklet is to be prepared in accordance with **Annex U1.2.1 "GUIDANCE FOR STABILITY INFORMATION FOR MASTER"**.
(2) For ships other than **(1)** above that comply with the International Convention on Load ~~l~~Lines, 1966 (referred to as "*ILLC*" in this Part), the booklet is to be prepared in the form approved by the Society.
(3) For ships other than **(1)** and **(2)** above, the booklet is to be prepared as deemed appropriate by the Society.
5 ~~Where the stability experiment is dispensed with in accordance with~~ In applying **2.3.2-3, Part B of the Rules**, in cases where the following **(1)** is satisfied and the Administration specially approves the dispensation of inclining tests, such tests may be dispensed with.
(1) a light~~-~~weight measurement is to be carried out, and it is to be confirmed that the deviation of light~~-~~weight between **(~~1~~a)** and **(~~2~~b)** below does not exceed a value specified in **Table B2.3.2-1**, and the deviation of lightship longitudinal centre of gravity between **(~~1~~a)** and **(~~2~~b)** does not exceed 0.5% of subdivision length (L_S) as defined in **4.1.2(6), Part C** or **4.1.2(6), Part CS of the Rules**, as applicable. For ships other than those of 500 *gross tonnage* and above engaged on international voyages, 0.5% of length of ship (L) can be applied. For the purpose of this requirement, a sister ship is a ship built by the same yard from the same plan.
(~~1~~a) Light~~-~~weight and lightship longitudinal centre of gravity determined by a light~~-~~weight check of the ship intended.

(~~2~~b) Light-weight and lightship longitudinal centre of gravity of a lead sister ship, or those values which are determined by detailed calculation regarding differences, where the ship is modified from a lead sister ship.

6 Where the stability experiment was dispensed with in accordance with the provisions of **2.3.2-3, Part B of the Rules** and **-5** above, light-weight and lightship centre of gravity are to be determined as follows.

(1) Light-weight and lightship longitudinal centre of gravity are to be derived from **-5(1)** above.

(2) Lightship vertical centre of gravity is to be the higher of either the lead sister ship's value or the calculated value for the considered ship.

7 The functional tests specified in **2.3.2-4, Part B of the Rules** are to be carried out in accordance with **Annex U1.2.2 "GUIDANCE FOR STABILITY COMPUTER", Part U of the Guidance**. "A computer for stability calculation is on board the ship as a supplement to the stability information booklet," stipulated in **2.3.2-4, Part B of the Rules**, refers to a computer for stability calculation or a computer in which software for stability calculation is installed that can be used at locations such as the navigation bridge and cargo control room.

8 With respect to the operation manuals and the functional tests for stability instruments specified in **2.3.2-5, Part B of the Rules**, reference is to be made to Chapter 4, Part B of *IMO resolution MSC.*267(85) "*International Code on Intact Stability, 2008* (*2008 IS Code*)".

Table B2.3.2-1 has been amended as follows.

Table B2.3.2-1 Acceptable Deviation of Light-~~W~~weight Regarding ~~Exemption from~~ Dispensation of Inclining Tests

Length for freeboard (L_f)	$L_f < 50$ *m*	$50\ m \leq L_f \leq 160\ m$	$160\ m < L_f$
Acceptable deviation, as given by a ratio of deviation to the ~~lightship displacement~~lightweight of the lead ship subjected to the inclining test	2%	Obtained by linear interpolation	1%

B6 DOCKING SURVEYS

B6.1 Docking Surveys

Paragraph B6.1.2 has been amended as follows.

B6.1.2 In-water Surveys

1 The approval of application for the In-water Survey specified in **6.1.2-1, 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 under 15 *years* of age.

(2) Survey Conditions
(omitted)

2 Approval of the consecutive In-water Surveys specified in **6.1.2-2, Part B of the Rules** is to be carried out with respect to each ship in reference to *IACS* Recommendation No.133.

B12 SURVEYS FOR MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES

B12.6 Docking Surveys

B12.6.1 General

Sub-paragraph -5 has been amended as follows.

5 Units to undergo the in-water survey are to comply with the provisions of **6.1.2-~~3~~4, Part B of the Rules** relevant to their configuration/construction. Where the unit has a dynamic positioning system, a suitable means to allow inspection of the exterior of thrusters is to be provided.

B15 SURVEYS FOR WORK-SHIPS

B15.6 Docking Surveys

Paragraph B15.6.1 has been amended as follows.

B15.6.1 General

Ships which will undergo an in-water survey are to comply with the provisions of **6.1.2-~~3~~4**, **Part B of the Rules** relevant to their configuration/construction. Where the unit has a dynamic positioning system, a suitable means to allow inspection of the exterior of thrusters is to be provided.

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 June 2017.

Amendment 2-2

B2 CLASSIFICATION SURVEYS

B2.3 Sea Trials and Stability Experiments

Paragraph B2.3.1 has been amended as follows.

B2.3.1 Sea Trials

(-1 to -11 are omitted.)

12 "Verification of Total Harmonic Distortion (THD) calculation report" stipulated in **2.3.1-1(12), Part B of the Rules** refers to the measuring of the Total Harmonic Distortion (THD) value of the main busbar so as to confirm that said value does not exceed the acceptable limit given in the report.

~~12~~**13** "Tests where deemed necessary by the Society" in **2.3.1-1(~~12~~13), Part B of the Rules**, refers to the tests and examinations mentioned in the following **(1)** to **(7)**.

((1) to (7) are omitted.)

~~13~~**14** In applying **2.3.1-2(1), Part B of the Rules**, if the rudder cannot be fully submerged at even keel, the draught that the rudder is fully submerged (at zero speed waterline) in which the vessel is in an acceptable trim condition can be accepted.

~~14~~**15** In applying **2.3.1-2(3), Part B of the Rules**, the following **(1)** or **(2)** is to be applied. Alternatively, the designer or builder may use computational fluid dynamic (CFD) studies or experimental investigations to predict the rudder stock moment (torque in the rudder stock) in the full load condition and at the service speed. These calculations or experimental investigations are to be verified by the Society.

((1) and (2) are omitted.)

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 July 2017.

2. Notwithstanding the amendments to the Guidance, the current requirements apply to ships for which the date of contract for construction* is before the effective date and that are not newly fitted with harmonic filters on or after 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 2-3

B3 ANNUAL SURVEYS

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

Paragraph B3.2.3 has been amended as follows.

B3.2.3 Performance Tests

1 The hose test stipulated in items 1 and 2 of **Table B3.3, Part B of the Rules** is to be in accordance with **1.4.4-3 of Annex B2.1.5-1 "Testing Procedures of Watertight Compartments"**.

~~**1**~~**2** Appliances stipulated in item 3 of **Table B3.3, Part B of the Rules** refer to those specified in **5.2.2**, **8.3.1-3** and **9.5.2-3, Part R of the Rules**.

~~**2**~~**3** For details on the examinations stipulated in items 4, 5 and 6 of **Table B3.3, Part B of the Rules**, refer to **B2.1.4-1(3)**.

~~**3**~~**4** "Computers for stability calculation that are installed as a supplement to the stability information booklet" stipulated in item 8 of **Table B3.3, Part B of the Rules**, refers to a computer for stability calculation or a computer in which software for stability calculation is installed that can be used at locations such as the navigation bridge and cargo control room.

~~**4**~~**5** The performance test stipulated in item 8 of **Table B3.3, Part B of the Rules** is to be carried out in the presence of the Surveyor according to the procedures in **(1)** to **(4)** below, so as to ensure that the stability computer is working correctly. Where a copy of prior computer checks which were carried out in accordance with procedures **(1)** to **(3)** or **(1)** and **(4)** is available and on board, and the Surveyor is able to verify that the computer is working properly, the confirmation of such results may substitute for the performance test.

(1) Retrieve at least one 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) Revise 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) As an alternative to the provisions of **(2)** and **(3)** above, select one or more test loading conditions which were used for the accuracy check, other than the one mentioned in **(1)** above, and perform a test calculation by entering all the deadweight data 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**~~**6** 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 **B1.1.3-9(5)**) 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 voyages, which have 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 the 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 the beginning stage of construction on and after 1 July 1998

(2) Cargo ships of 500 *gross tonnage* and above engaged on international voyages 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 the 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 the beginning stage of construction on or after 1 July 2006

~~6~~**7** Inspection of Dewatering Arrangements (refer to **13.5.10**, **Part D of the Rules**) 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 voyages 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 the 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 the beginning stage of construction on or after 1 July 2006

B4 INTERMEDIATE SURVEYS

B4.2 Intermediate Surveys for Hull, Equipment, Fire Extinction and Fittings

Paragraph B4.2.3 has been amended as follows.

B4.2.3 Performance Tests

1 The hose test stipulated in items 2 and 14 of **Table B4.1, Part B of the Rules** is to be in accordance with **1.4.4-3 of Annex B2.1.5-1 "Testing Procedures of Watertight Compartments"**.

2 For details on the examinations stipulated in items 4 through 11 in **Table B4.1, Part B of the Rules**, refer to **B2.1.4-1(3)**.

B5 SPECIAL SURVEYS

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

Paragraph B5.2.3 has been amended as follows.

B5.2.3 Performance Test

1 The performance test of computers for stability calculation which are fitted on board the ship as a supplement to stability information booklets is to be carried out in the presence of the Surveyor according to the procedures specified in **(1)** to **(3)** below, so as to ensure that the stability computer is working correctly.

(1) Retrieve all 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) Revise the modified load condition as mentioned in **(2)** above to restore the initial test condition as mentioned in **(1)** above and compare the results.

2 The hose test stipulated in **5.2.3-2(2)** and **(5)**, **Part B of the Rules** is to be in accordance with **1.4.4-3**, **Annex B2.1.5-1 "Testing Procedures of Watertight Compartments"**.

~~**2**~~**3** Operational tests specified in **5.2.3-2(3)** and **(5), Part B of the Rules** are to be carried out to the working pressure of all bilge and ballast piping systems.

~~**3**~~**4** The performance test specified in **5.2.3-2(10), Part B of the Rules** is to be in accordance with the following:

(1) The accommodation ladder, gangway and winch are to be operationally tested with the specified maximum operational load.

(2) The load used for the test is to be the following:
   (a) the design load;
   (b) the maximum operational load, if this is less than the design load; and
   (c) the load nominated by the shipowner or operator only in those cases where the design load or maximum operational load is not known.

(3) The tests are to be carried out with the load applied as uniformly as possible along the length of the accommodation ladder or gangway, at an angle of inclination corresponding to the maximum bending moment on the accommodation ladder or gangway.

(4) Following satisfactory completion of the applicable test without permanent deformation or damage to the tested item, the load used for that test is to be marked as the maximum operational load on the plate specified in **C23.8.1-2(6), Part C of the Guidance**.

B6 DOCKING SURVEYS

B6.1 Docking Surveys

Paragraph B6.1.1 has been amended as follows.

B6.1.1 Surveys in Dry Dock or on Slipway

1 The pressure test stipulated in item 2 of **Table B6.1, Part B of the Rules** refers to that specified in item 13 of **Table 1**, **Annex B2.1.5-1 "Testing Procedures of Watertight Compartments"**.

2 "Mean diameter" as prescribed in item 7 of **Table B6.1**, **Part B of the Rules** refers to the average of the smallest diameter (the diameter measured in the direction with the most wear) found in one cross-section of the link and the diameter measured perpendicular to it in the same cross-section.

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 July 2017.

2. Notwithstanding the amendments to the Guidance, the current requirements apply to the surveys for which the application is submitted to the Society before the effective date.

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

Amendment 2-4

B3 ANNUAL SURVEYS

B3.3 Annual Surveys for Machinery

B3.3.1 General Examinations

Sub-paragraph -3 has been added as follows.

3 In general examinations specified in **3.3.1-1, Part B of the Rules**, For ships equipped with electrical distribution systems which include harmonic filters, it is to be ascertained that the filters are placed in good order and either of the following **(1)** or **(2)** is to be verified, except in cases where the filters are installed for single application frequency drives such as pump motors.

(1) For harmonic filters included in the electrical distribution systems described in either the following **(a)** or **(b)**, the records of the Total Harmonic Distortion (THD) value specified in **2.12.4-1, Part H of the Rules** are to be verified.
   (a) Electrical distribution systems on board ships for which the date of contract for construction is on or after 1 July 2017.
   (b) Electrical distribution systems on board ships for which the date of contract for construction is before 1 July 2017, but which are newly fitted with harmonic filters on or after 1 July 2017.

(2) For harmonic filters other than **(1)(a)** or **(b)**, correct operation is to be confirmed by verifying that the maximum Total Harmonic Distortion (THD) value of the main busbar on board the ship is measured under typical seagoing conditions as close as possible to the date of the Annual Survey and the value does not exceed the acceptable limit.

EFFECTIVE DATE AND APPLICATION (Amendment 2-4)

1. The effective date of the amendments is 1 July 2017.