

RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part B

Class Surveys

Rules for the Survey and Construction of Steel Ships

Part B

2023 AMENDMENT NO.2

Guidance for the Survey and Construction of Steel Ships

Part B

2023 AMENDMENT NO.2

Rule No.67 / Notice No.63 22 December 2023

Resolved by Technical Committee on 27 July 2023

ClassNK
NIPPON KAIJI KYOKAI

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

RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

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2023 AMENDMENT NO.2

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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

2.1.3 Submission of Other Plans and Documents

Sub-paragraph -1(18) has been added as follows.

1 When it is intended to build a ship to the classification with the Society the following plans and documents are to be submitted, in addition to those required in **2.1.2**:

((1) to (17) are omitted.)

(18) Technical specification documents for mooring lines (**14.4.4.4, Part 1, Part C**)

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.

((1) is omitted.)

(2) Other documents

((a) to (x) are omitted.)

(y) Technical specification documents for mooring lines (**14.4.4.4, Part 1, Part C**)

((3) is omitted.)

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 January 2024.
2. Notwithstanding the amendments to the Rules, the current requirements apply to ships other than ships that fall under the following:
 - (1) for which the contract for construction is placed on or after the effective date; or
 - (2) in the absence of a contract for construction, the keels of which are laid or which are at *a similar stage of construction* on or after 1 July 2024; or
 - (3) the delivery of which is on or after 1 January 2027.(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.

Chapter 2 CLASSIFICATION SURVEYS

2.1 Classification Survey during Construction

2.1.4 Presence of Surveyor*

Sub-paragraph -1(8) has been amended as follows.

1 The presence of the Surveyor is required at the following stages of the work in relation to hull and equipment. To implement surveys of items specified otherwise by the Society, in lieu of traditional ordinary surveys where the Surveyor is in attendance, the Society may approve other survey methods which it considers to be appropriate in the following cases.

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

(8) When performance tests are carried out on closing appliances of openings, remote control devices, steering gears, anchoring and mooring equipment, emergency towing arrangements, means of embarkation and disembarkation (specified in **14.14, Part 1, Part C** or **21.8, Part CS**), fire fighting systems, piping, water level detection and alarm systems (specified in **13.8.5, ~~and 13.8.6~~ and 13.8.7, Part D**), dewatering arrangements (specified in **13.5.10, Part D**), etc. 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 2.1.4**).

((9) to (17) are omitted.)

2.1.6 Documents to be Maintained On Board*

Sub-paragraph -1 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.

(1) Documents approved by the Society or their copies

((a) to (t) are omitted.)

(2) Other documents

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

(h) Manuals for the water level detection and alarm systems (**13.8.5-4, ~~or 13.8.6-3~~ or 13.8.7-5, Part D**)

((i) to (x) are omitted.)

(3) Finished plans specified in **2.1.7**

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 January 2024.
2. Notwithstanding the amendments to the Rules, the current requirements apply to ships other than ships that fall under the following:
 - (1) for which the contract for construction is placed on or after the effective date; or
 - (2) in the absence of a contract for construction, the keels of which are laid or which are at *a similar stage of construction* on or after 1 July 2024; or
 - (3) the delivery of which is on or after 1 January 2028.(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.

Chapter 2 CLASSIFICATION SURVEYS

2.1 Classification Survey during Construction

2.1.5 Hydrostatic Tests, Watertight Tests, and Relevant Tests*

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

In the Classification Survey during Construction, hydrostatic tests, watertight tests, and other relevant tests are to be carried out in accordance with the following:

(1) Hull and equipment

The watertightness and the structural adequacy of tanks and watertight boundaries as well as the weathertightness of other structures and shipboard outfittings are to be verified by following (a) and (b).

(a) For ships subject to *SOLAS Convention*, the tests stipulated in *SOLAS Chapter II-1 Regulation 11*, except where specially approved by the Administration; and

(b) The tests stipulated in the following i) ~~or ii) to iii)~~:

i) Testing procedures of watertight compartments for ships subject to *SOLAS Convention* (including ships subject to **Part CSR-B&T**) are to be carried out in accordance with **Chapter 1, of Annex 2.1.5 “Testing Procedures of Watertight Compartments”**, unless:

- 1) the shipyard provides documentary evidence of the shipowner’s agreement to a request to the Flag Administration for an exemption from the application of *SOLAS Chapter II-1, Regulation 11*, or for an equivalency agreeing that the content of **Chapter 2, of Annex 2.1.5 “Testing Procedures of Watertight Compartments”** is equivalent to *SOLAS Chapter II-1, Regulation 11*; and
- 2) the above-mentioned exemption/equivalency has been granted by the responsible Flag Administration.

ii) Testing procedures of watertight compartments are to be carried out in accordance with **Chapter 2, of Annex 2.1.5 “Testing Procedures of Watertight Compartments”** for ~~ships not subject to *SOLAS Convention* and~~ ships subject to *SOLAS Convention* (including ships subject to **Part CSR-B&T**) for which:

- 1) the shipyard provides documentary evidence of the shipowner’s agreement to a request to the Flag Administration for an exemption from the application of *SOLAS Chapter II-1, Regulation 11*, or for an equivalency agreeing that the content of **Chapter 2, of Annex 2.1.5 “Testing Procedures of Watertight Compartments”** is equivalent to *SOLAS Chapter II-1, Regulation 11*; and
- 2) the above-mentioned exemption/equivalency has been granted by the responsible Flag Administration.

iii) Testing procedures of watertight compartments for ships not subject to *SOLAS Convention* are to be carried out in accordance with **Chapter 3, Annex 2.1.5 “Testing Procedures of Watertight Compartments”**

(2) Machinery

Hydrostatic, leakage or airtight tests are to be carried out as specified in each Chapter of **Part D** in relation to the kind of machinery.

Annex 2.1.5 TESTING PROCEDURES OF WATERTIGHT COMPARTMENTS

Chapter 1 SHIPS SUBJECT TO SOLAS CONVENTION

Title of Section An1.3 has been amended as follows.

An1.3 Test Types and Definitions

Paragraph An1.3.1 has been amended as follows.

An1.3.1 Tests

1 The following two types of tests are specified in this requirement:

(1) Structural Test

A test to verify the structural adequacy of tank construction. This may be a hydrostatic test or, where the situation warrants, a hydropneumatic test.

(2) Leak Test

A test to verify the tightness of a boundary. Unless a specific test is indicated, this may be a hydrostatic/hydropneumatic test or an air test. A hose test may be considered an acceptable form of leak test for certain boundaries, as indicated ~~by~~ in Note *3, Table An-1.4-1, Footnote 3.

2 The definition of each test type is as indicated ~~by~~ in Table An-1.3.1.

3 The 'top of the overflow' is defined as being the top of any overflow system which is used to prevent overfilling of a tank. Such system can be an overflow pipe, airpipe, intermediate tank. For gravity tanks (i.e. sewage, grey water and similar tanks, not filled with pumps) the top of the overflow is to be taken as the highest point of the filling line.

Note: Gauging devices are not considered equivalent to an overflow system with the exception of fuel oil overflow tanks not intended to hold fuel which have been fitted with a level alarm. Where a tank is fitted with multiple means of preventing overfilling, the decision on which overflow system is to be used to determine the test head is to be based on the highest point to which the liquid may rise in service.

An1.4 Test Procedures

An1.4.2 Structural Test Procedures

Sub-paragraph -2 has been renumbered to Sub-paragraph -3, and Sub-paragraph -2 has been added as follows.

1 Type and time of test

Where a structural test is specified in **Table An1.4-1** or **An1.4-2**, a hydrostatic test in accordance with **An1.4.4-1** will be acceptable. Where practical limitations (strength of building berth, light density of liquid, etc.) prevent the performance of a hydrostatic test, a hydropneumatic test in accordance with **An1.4.4-2** may be accepted instead.

A hydrostatic test or hydropneumatic test for the confirmation of structural adequacy may be carried out while the ship is afloat, provided the results of a leak test are confirmed to be satisfactory before the ship is afloat.

2 Alternative equivalent tank testing procedures may be considered for tanks which are constructed from composite materials such as glass reinforced plastic (GRP) and fibre reinforced

plastic (FRP) based on the recommendations of the composite manufacturer.

23 Testing schedule for new construction or major structural conversion is as follows.

- (1) Tanks which are intended to hold liquids, and which form part of the watertight subdivision of the ship, are to be tested for tightness and structural strength as indicated in **Table An1.4-1** and **Table An1.4-2**.
- (2) The tank boundaries are to be tested from at least one side. The tanks for structural test are to be selected so that all representative structural members are tested for the expected tension and compression.
- (3) For the watertight boundaries of spaces other than tanks structural testing may be exempted, provided that the water-tightness of boundaries of exempted spaces is verified by leak tests and inspections. Structural testing may not be exempt and the requirements for structural testing of tanks in (1) and (2) above shall apply, for ballast holds, chain lockers and a representative cargo hold if intended for in-port ballasting.

An1.4.4 Test Methods

Sub-paragraph -1 has been amended as follows.

1 Hydrostatic test

Unless another liquid is approved, hydrostatic tests are to consist of filling the space with fresh water or sea water, whichever is appropriate for testing, to the level specified in **Table An1.4-1** or **Table An1.4-2**. See also **An-1.4.7**.

In cases where a tank is designed for cargo densities greater than sea water and testing is with fresh water or sea water, the testing pressure height is to simulate the actual loading for those greater cargo densities as far as practicable, but the test pressure is not to exceed the maximum design internal pressure at the top of tank.

All external surfaces of the tested space are to be examined for structural distortion, bulging and buckling, other related damage and leaks.

Table An 1.4-1 has been amended as follows.

Table An-1.4-1 Test Requirements for Tanks and Boundaries

	Tank or boundary to be tested	Test type	Test head or pressure	Remarks
1	Double bottom tanks ^{*4}	Leak and structural ^{*1}	The greater of - top of the overflow, ^{*10} - to 2.4 m above top of tank ^{*2} , or - to bulkhead deck	
2	Double bottom voids ^{*5}	Leak	See An-1.4.4-4 through -6, as applicable	including pump room double bottom and bunker tank protection double hull required by Part 3, of the Rules for Marine Pollution Prevention Systems
3	Double side tanks	Leak and structural ^{*1}	The greater of - top of the overflow, ^{*10} - to 2.4 m above top of tank ^{*2} , or - to bulkhead deck	
4	Double side voids	Leak	See An-1.4.4-4 through -6, as applicable	
5	Deep tanks other than those listed elsewhere in this table	Leak and structural ^{*1}	The greater of - top of the overflow, ^{*10} or - to 2.4 m above top of tank ^{*2}	
6	Cargo oil tanks	Leak and structural ^{*1}	The greater of - top of the overflow, ^{*10} - to 2.4 m above top of tank ^{*2} , or - to top of tank ^{*2} plus setting of any the design vapour pressure relief valve	
7	Ballast hold of bulk carriers	Leak and structural ^{*1}	Top of cargo hatch coaming	
8	Peak tanks	Leak and structural ^{*1}	The greater of - top of the overflow, ^{*10} or - to 2.4 m above top of tank ^{*2}	After peak to be tested after installation of stern tube
9	.1 Fore peak spaces with equipment	Leak	See An-1.4.4-3 through -6, as applicable	
	.2 Fore peak voids	Leak	See An-1.4.4-4 through -6, as applicable	
	.3 Aft peak spaces with equipment	Leak	See An-1.4.4-3 through -6, as applicable	
	.4 Aft peak voids	Leak	See An-1.4.4-4 through -6, as applicable	After peak to be tested after installation of stern tube
10	Cofferdams	Leak	See An-1.4.4-4 through -6, as applicable	
11	.1 Watertight bulkheads	Leak ^{*8}	See An-1.4.4-3 through -6, as applicable ^{*7}	
	.2 Superstructure end bulkheads	Leak	See An-1.4.4-3 through -6, as applicable	
12	Watertight doors below freeboard or bulkhead deck	Leak ^{*6,7}	See An-1.4.4-3 through -6, as applicable	
13	Double plate rudder blades	Leak	See An-1.4.4-4 through -6, as applicable	

Table An-1.4-1 Test Requirements for Tanks and Boundaries (Continued)

	Tank or boundary to be tested	Test type	Test head or pressure	Remarks
14	Shaft tunnels clear of deep tanks	Leak ^{*3}	See An-1.4.4-3 through -6, as applicable	
15	Shell plating	Leak ^{*3}	See An-1.4.4-3 through -6, as applicable	For shell plating of the areas listed in item 1 through item 10, refer to the corresponding item
16	Shell doors	Leak ^{*3}	See An-1.4.4-3 through -6, as applicable	
17	Watertight hatch covers and closing appliances	Leak ^{*3,7}	See An-1.4.4-3 through -6, as applicable	Hatch covers closed by tarpaulins and battens excluded
18	Dual purpose tanks/dry cargo hatch covers	Leak ^{*3,7}	See An-1.4.4-3 through -6, as applicable	In addition to structural test in item 6 or 7
19	Chain lockers	Leak and structural ^{*1}	Top of chain pipe	
20	L.O. sump. tanks and other similar tanks/spaces under main engines	Leak ^{*9}	See An-1.4.4-3 through -6, as applicable	
21	Ballast ducts	Leak and structural ^{*1}	The greater of - ballast pump maximum pressure, or - setting of any pressure relief valve	
22	Fuel Oil Tanks	Leak and structural ^{*1}	The greater of - top of the overflow ^{*10} , - to 2.4 m above top of tank ^{*2} , or - to top of tank ^{*2} plus setting of any the design vapour pressure relief valve , or - to bulkhead deck	
<u>23</u>	<u>Fuel oil overflow tanks not intended to hold fuel</u>	<u>Leak and structural^{*1}</u>	<u>The greater of</u> <u>- top of the overflow^{*10},</u> <u>- to 2.4 m above top of tank^{*2}, or</u> <u>- to bulkhead deck</u>	

Notes:

- 1 Refer to section ~~An-1.4.2-23~~.
- 2 The top of a tank is the deck forming the top of the tank, excluding any hatchways.
- 3 Hose Test may also be considered as a medium of the test. See ~~An-1.3.1-2~~.
- 4 Including tanks arranged in accordance with the provisions of **2.4.1.1-3, Part 1, Part C**.
- 5 Including duct keels and dry compartments arranged in accordance with the provisions of **2.4.1.1-3, Part 1, Part C**, and/or oil fuel tank protection and pump room bottom protection arranged in accordance with the provisions of **1.2.3** and **3.2.5, Part 3, of the Rules for Marine Pollution Prevention Systems** respectively.
- 6 Where water tightness of a watertight door has not been confirmed by prototype test, testing by filling watertight spaces with water is to be carried out. See **2.2.2.3-1, Part 1, Part C**.
- 7 As an alternative to the hose testing, other testing methods listed in ~~An-1.4.4-7~~ through -9 may be applicable subject to adequacy of such testing methods being verified. For watertight bulkheads (item 11.1) alternatives to the hose testing may only be used where a hose test is not practicable.
- 8 A "Leak and structural test", see ~~An-1.4.2-23~~ is to be carried out for a representative cargo hold if intended for in-port ballasting. The filling level requirement for testing cargo holds intended for in-port ballasting is to be the maximum loading that will occur in-port as indicated in the loading manual.
- 9 Where L.O. sump tanks and other similar spaces under main engines intended to hold liquid form part of the watertight subdivision required to satisfy the damage stability requirements of the ship, they are to be tested as per the requirements of Item 5, Deep tanks other than those listed elsewhere in this table.
- 10 Refer to section ~~An-1.3.1-3~~.
- ~~11~~ Tests of piping systems in each part of the ship are to be carried out as specified in **12.6, 13.17, and 14.6, Part D of the**

Rules.

Table An 1.4-2 has been amended as follows.

Table An-1.4-2 Additional Test Requirements for Special Service Ships/Tanks

	Type of Ship/Tank	Structures to be tested	Type of Test	Test Head or Pressure	Remarks
1	Liquefied gas carriers	Integral tanks	Leak and structural	Refer to Part N of the Rules	
		Hull structure supporting membrane or semi-membrane tanks	Refer to Part N of the Rules	Refer to Part N of the Rules	
		Independent tanks type A	Refer to Part N of the Rules	Refer to Part N of the Rules	
		Independent tanks type B	Refer to Part N of the Rules	Refer to Part N of the Rules	
		Independent tanks type C	Refer to Part N of the Rules	Refer to Part N of the Rules	
2	Edible liquid tanks	Independent tanks	Leak and structural* ¹	The greater of - top of the overflow* ⁵ , or - to 0.9 m above top of tank* ²	
3	Chemical carriers	Integral or independent cargo tanks	Leak and structural* ^{1,4}	The greater of - to 2.4 m above top of tank* ^{2,3} , or - to top of tank* ² plus setting of any the design vapour pressure relief valve	Where a cargo tank is designed for the carriage of cargoes with specific gravities larger than 1.0, an appropriate additional head is to be considered ³ see An 1.4.4-1

Notes:

- 1 Refer to Section ~~An=1.4.2-23~~.
- 2 Top of tank is deck forming the top of the tank excluding any hatchways.
- 3 For gravity tanks that are to be loaded with cargoes having a cargo density exceeding 1.0, a hydrostatic test is to be carried out with a head of water to the height obtained from the following formula above the top of the tank.

$$\frac{H}{2}(\gamma - 1) + 2.4 \text{ (m)}$$

H : Vertical distance measured from the lower edge of the bulkhead plate of the tank to the top of the tank (m)
 γ : Density of cargoes loaded in the tank.

Where L exceeds 150 m, or H is exceptionally large in comparison with L , the manner of the hydrostatic test is to be considered by the Society.
- 4 For pressure tanks, these tests are to be carried out in accordance with ~~4.23.6, Part N of the Rules~~. In applying ~~4.23.6, Part N of the Rules~~, “design vapour pressure” is to be read as “design pressure”.
- 5 Refer to section ~~An1.3.1-3~~.

Title of Chapter 2 has been amended as follows.

Chapter 2 SHIPS ~~OTHER THAN THOSE~~ SUBJECT TO SOLAS CONVENTION ~~AS SPECIFIED IN CHAPTER 1~~ EXEMPT/EQUIVALENT

An2.1 General

An2.1.1 General

Sub-paragraph -2 has been amended as follows.

1 The test procedures specified in this Annex are to confirm the watertightness of tanks and watertight boundaries as well as the structural adequacy of tanks which make up the watertight subdivisions of ships. These procedures may also be applied to verify the weathertightness of structures and shipboard outfitting. The tightness of all tanks and watertight boundaries of ships being newly constructed and ships undergoing major conversions or major repairs is to be confirmed by these test procedures prior to the delivery of the ship. "Major repairs" refers to repairs affecting the tightness of watertight boundaries.

2 Testing procedures of watertight compartments are to be carried out in accordance with **Chapter 2, of Annex 2.1.5 "Testing Procedures of Watertight Compartments"** for ~~ships not subject to SOLAS Convention and~~ ships subject to *SOLAS Convention* (including ships subject to **Part CSR-B&T**) for which:

- (1) the shipyard provides documentary evidence of the shipowner's agreement to a request to the Flag Administration for an exemption from the application of *SOLAS Chapter II-1, Regulation 11*, or for an equivalency agreeing that the content of **Chapter 2, of Annex 2.1.5 "Testing Procedures of Watertight Compartments"** is equivalent to *SOLAS Chapter II-1, Regulation 11*; and
- (2) the above-mentioned exemption/equivalency has been granted by the responsible Flag Administration.

An2.2 Application

Paragraph An2.2.1 has been amended as follows.

An2.2.1 Application

1 Testing procedures are to be carried out in accordance with the requirements of **Chapter 1** of this Annex in association with the following alternative procedures specified in ~~-2 to -6~~7 for **An 1.4.2-23 and Table An1.4-1**.

2 The tank boundaries are to be tested from at least one side. The tanks for structural test are to be selected so that all representative structural members are tested for the expected tension and compression.

3 Structural tests are to be carried out for at least one tank of a group of tanks having structural similarity (i.e. same design conditions, alike structural configurations with only minor localised differences determined to be acceptable by the attending Surveyor) on each vessel provided all other tanks are tested for leaks by an air test. The acceptance of leak testing using an air test instead of a structural test does not apply to cargo space boundaries adjacent to other compartments in tankers and combination carriers or to the boundaries of tanks for segregated cargoes or pollutant cargoes in other types of ships.

4 Additional tanks may require structural testing if found necessary after the structural testing of

the first tank.

5 For tanks which are less than 2 m³ in volume, structural testing may be replaced by leak testing.

~~56~~ Where the structural adequacy of the tanks and spaces of a vessel were verified by the structural testing required in ~~Table A-1.4.1~~ of by either **Chapter 1** or **-3** above, subsequent vessels in the series (i.e. sister ships built from the same plans at the same shipyard) may be exempted from structural testing of tanks, provided that:

- (1) Water-tightness of boundaries of all tanks and spaces is verified by leak tests and thorough inspections are carried out.
- (2) Structural testing is carried out for at least one tank or space of each type among all tanks/spaces of each sister vessel.
- (3) Additional tanks and spaces may require structural testing if found necessary after the structural testing of the first tank or if deemed necessary by the attending Surveyor.

For cargo space boundaries adjacent to other compartments in tankers and combination carriers or boundaries of tanks for segregated cargoes or pollutant cargoes in other types of ships, ~~the provisions of -3 above are to apply in lieu of preceding (2)~~ structural tests are to be carried out for at least one tank of a group of tanks having structural similarity (i.e. same design conditions, alike structural configurations with only minor localised differences determined to be acceptable by the attending Surveyor) on each vessel provided all other tanks are tested for leaks by an air test.

~~67~~ Sister ships built (i.e. keel laid) two years or more after the delivery of the last ship of the series, may be tested in accordance with ~~-56~~ above at the discretion of the Society, provided that:

- (1) ~~General~~ General workmanship has been maintained (i.e. there has been no discontinuity of shipbuilding or significant changes in the construction methodology or technology at the yard, shipyard personnel are appropriately qualified and demonstrate an adequate level of workmanship as determined by the Society) and:
- (2) ~~An~~ An NDT plan is implemented and evaluated by the Society for the tanks not subject to structural tests. Shipbuilding quality standards for the hull structure during new construction are to be reviewed and agreed during the kick-off meeting. ~~Structural fabrication is to be carried out in accordance with IACS Recommendation No.47, "Shipbuilding and Repair Quality Standard", JSQS or a recognised fabrication standard which has been accepted by the Society prior to the commencement of fabrication/construction.~~ The work is to be carried out in accordance with the Rules and under survey of the Society.

Chapter 3 has been added as follows.

Chapter 3 SHIPS NOT SUBJECT TO SOLAS CONVENTION

An3.1 General

An3.1.1 General

1 The test procedures specified in this Annex are to confirm the watertightness of tanks and watertight boundaries as well as the structural adequacy of tanks which make up the watertight subdivisions of ships. These procedures may also be applied to verify the weathertightness of structures and shipboard outfitting. The tightness of all tanks and watertight boundaries of ships being newly constructed and ships undergoing major conversions or major repairs is to be confirmed by these test procedures prior to the delivery of the ship. "Major repairs" refers to repairs affecting the tightness of watertight boundaries.

2 Testing procedures of watertight compartments are to be carried out in accordance with **Chapter 3, Annex 2.1.5 "Testing Procedures of Watertight Compartments"** for ships not subject to *SOLAS Convention*.

An3.2 Application

An3.2.1 Application

1 Testing procedures are to be carried out in accordance with the requirements of **Chapter 1** of this Annex in association with the following alternative procedures specified in **-2 to -8** for **An1.4.2-3**.

2 The tank boundaries are to be tested from at least one side. The tanks for structural test are to be selected so that all representative structural members are tested for the expected tension and compression.

3 The requirements given in **Table An1.4-1** of **Chapter 1** for structurally testing tanks at 2.4 *m* above the top of the tank do not apply. Instead, the minimum test pressure for structural testing is to be taken as $0.3D + 0.76$ *m* above the top of the tank where the top of the tank is the deck forming the top of the tank, excluding any hatchways and *D* is the depth of the ship. The minimum test pressure need not be taken greater than 2.4 *m* above the top of the tank.

4 Structural tests are to be carried out for at least one tank of a group of tanks having structural similarity (i.e. same design conditions, alike structural configurations with only minor localised differences determined to be acceptable by the attending Surveyor) on each vessel provided all other tanks are tested for leaks by an air test. The acceptance of leak testing using an air test instead of a structural test does not apply to cargo space boundaries adjacent to other compartments in tankers and combination carriers or to the boundaries of tanks for segregated cargoes or pollutant cargoes in other types of ships.

5 Additional tanks may require structural testing if found necessary after the structural testing of the first tank.

6 For tanks which are less than 2 *m*³ in volume, structural testing may be replaced by leak testing.

7 Where the structural adequacy of the tanks and spaces of a vessel were verified by the structural testing required by either **Chapter 1** or **-4** above, subsequent vessels in the series (i.e. sister ships built from the same plans at the same shipyard) may be exempted from structural testing of tanks, provided that:

(1) Water-tightness of boundaries of all tanks and spaces are verified by leak tests and thorough inspections are carried out.

(2) Structural testing is carried out for at least one tank or space among all tanks/spaces of each sister vessel.

(3) Additional tanks and spaces may require structural testing if found necessary after the structural testing of the first tank or if deemed necessary by the attending Surveyor.

For cargo space boundaries adjacent to other compartments in tankers and combination carriers or boundaries of tanks for segregated cargoes or pollutant cargoes in other types of ships, structural tests are to be carried out for at least one tank of a group of tanks having structural similarity (i.e. same design conditions, alike structural configurations with only minor localised differences determined to be acceptable by the attending Surveyor) on each vessel provided all other tanks are tested for leaks by an air test.

8 Sister ships built (i.e. keel laid) two years or more after the delivery of the last ship of the series, may be tested in accordance with -7 above at the discretion of the Society, provided that:

(1) General workmanship has been maintained (i.e. there has been no discontinuity of shipbuilding or significant changes in the construction methodology or technology at the yard, shipyard personnel are appropriately qualified and demonstrate an adequate level of workmanship as determined by the Society) and:

(2) An NDT plan is implemented and evaluated by the Society for the tanks not subject to structural tests. Shipbuilding quality standards for the hull structure during new construction are to be reviewed and agreed during the kick-off meeting. The work is to be carried out in accordance with the Rules and under survey of the Society.

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 January 2024.
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.
* “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.

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.

((1) is omitted.)

(2) Other documents

((a) to (x) are omitted.)

(y) Management plans for inspection and maintenance of mooring equipment (including mooring lines)

Chapter 3 ANNUAL SURVEYS

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

3.2.1 Examination of Plans and Documents*

Table B3.1 has been amended as follows.

Table B3.1 Examination of Plans and Documents

Items	Examination
1 Loading Manual	(1) For ships required to have the manual on board in accordance with the requirements of 3.8.1.1, Part 1, Part C , and 25.1.1, Part CS , confirmation that the manual is kept on board is to be made.
2 Stability Information Booklet	(1) Confirmation as to whether the booklet is kept on board is to be made.
3 Damage Control Plan, Booklet and Damage Stability Information	(1) For ships required to have the damage control plan on board in accordance with the requirement in 2.3.4, Part 1, Part C , confirmation that the approved plan is exhibited and the booklet containing the information shown in the plan and the damage stability information are kept on board is to be made.
4 Fire Control Plan	(1) Confirmation that the fire control plan is exhibited and properly stored is to be made.
5 Operating and Maintenance Manual for the door and inner door and notices indicating procedures for closing and securing	(1) For ships required to have the manual and notices on board in accordance with the requirements in 14.10, Part 1, Part C , and Chapter 21, Part CS ; (2) Confirmation that the manual is kept on board is to be made. (3) Confirmation that the board is exhibited is to be made.

6 Instruction Manuals for the Inert Gas System	(1) For ships required to have the manual on board in accordance with the requirements of 4.5.5, Part R , confirmation that the manual is kept on board is to be made.
7 Towing and Mooring Fitting Arrangement Plan	(1) Confirmation that the Towing and Mooring Fitting Arrangement Plan specified in 14.4, Part 1, Part C or 23.2, Part CS is kept on board is to be made.
8 Ship Structure Access Manual	(1) For ships required to have the manual on board in accordance with the requirements of 14.16.3.6, Part 1, Part C or 26.2.6, Part CS , confirmation that the manual is kept on board and updated as necessary is to be made.
9 Documents related to the surveys for bulk carriers, oil tankers and ships carrying dangerous chemicals in bulk with integral tanks	(1) Confirmation that the documents are kept on board is to be made.
10 Coating Technical File and/or Corrosion Resistant Steel Technical File	(1) For ships required to have a Coating Technical File for dedicated seawater ballast tanks, etc. on board in accordance with the requirements of 3.3.5.3, Part 1, Part C, 22.4.2, Part CS, 1.2.2 Section 5 Chapter 3, Part CSR-B or 2.1.1.2 Section 6, Part CSR-T , confirmation that the file is kept on board and that maintenance and repair work are properly recorded and kept on the file is to be made. (2) For ships required to have a Coating Technical File and/or a Corrosion Resistant Steel Technical File for cargo oil tanks on board in accordance with the requirements of 3.3.5.4, Part 1, Part C or 22.4.3, Part CS , confirmation that the files are kept on board and that maintenance and repair work are properly recorded and kept on the files is to be made.
11 Noise survey report	(1) Confirmation that the report is kept on board
12 Polar Water Operational Manual	(1) For ships required to have the manual on board in accordance with the requirements of 2.3.1, Part I , confirmation that the manual is kept on board is to be made.
13 Drawings indicating critical structural areas, construction monitoring plan and all construction monitoring survey records	(1) For ships affixed with the notation “ <i>HCM</i> ” or “ <i>HCM-GBS</i> ”, confirmation that the documents are kept on board is to be made.
14 Watertight cable penetration register	(1) Confirmation that the register is kept on board and updated as necessary is to be made.
15 Management plans for inspection and maintenance of mooring equipment (including mooring lines)	(1) Confirmation that the plan is kept on board and updated as necessary is to be made.

EFFECTIVE DATE AND APPLICATION (Amendment 2-4)

1. The effective date of this amendment is 1 January 2024.

Chapter 1 GENERAL

1.3 Definitions

1.3.1 Terms*

Sub-paragraphs (11) and (12) have been amended as follows.

- (11) “Oil tankers” are ships constructed or adapted for the carriage of oil in bulk ~~and include in~~ cargo tanks forming an integral part of the ship’s hull, including chemical carriers intended to carry oil in bulk and combination carriers which are designed to carry either oil or solid cargoes in bulk, such as ore/oil carriers and ore/bulk/oil carriers but excluding ships carrying oil in independent tanks not part of the ship’s hull such as asphalt carriers.
- (12) “Double hull oil tankers” are ships which belong to oil tankers specified in (11) above, which have the cargo tanks forming an integral part of the ship’s hull and are protected by a double hull which extends for the entire length of the cargo area, consisting of double sides and double bottom spaces for the carriage of water ballast or void spaces, and includes existing double hull tankers not complying with **3.2.4, Part 3 of the Rules for Marine Pollution Prevention Systems** but having double hull structure.

Chapter 3 ANNUAL SURVEYS

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

3.2.4 Internal Examinations of Spaces and Tanks*

Table B3.4 has been amended as follows.

Table B3.4 Internal Examinations of Spaces and Tanks

Items	Examination
(Omitted)	
Requirements for Double Skin Bulk Carriers	
1 Engine room and boiler room	(1) An internal examination is to be carried out.
2 Ballast tanks	(1) For bulk carriers over 5 <i>years</i> of age, an internal examination of the tank(s), of which an internal examination is required as a consequence of the last Intermediate Survey or Special Survey, is to be carried out.
3 Cargo holds	(1) For bulk carriers over 10 <i>years</i> and up to 15 <i>years</i> of age, an internal examination of two selected cargo holds is to be carried out. (2) For bulk carriers over 15 <i>years</i> of age, an internal examination of all cargo holds is to be carried out.
4 Double side skin void spaces	(1) For bulk carriers over 20 <i>years</i> of age and of 150 <i>m</i> in length and upwards, an internal examination of the void spaces, of which an internal examination is required as a consequence of the last Intermediate Survey or Special Survey, is to be carried out.
(Omitted)	

3.2.6 Thickness Measurements

Table B3.6 has been amended as follows.

Table B3.6 Thickness Measurements

Items	Note
(Omitted)	
<u>Requirements for Bulk Carriers other than Double Skin Bulk Carriers</u>	
1 Structural members in ballast tanks	(1) When extensive corrosion is found in the examination of ballast tanks specified in Table B3.4 which is required for bulk carriers <u>other than double skin bulk carriers</u> 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 5.2.6-5 .
2 Hatch covers and hatch coamings	(1) When deemed necessary by the Surveyor as a consequence of the internal examination required in Table B3.4 or the close-up survey required in Table B3.5 for bulk carriers <u>other than double skin bulk carriers</u> , 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 5.2.6-5 .
3 Structural members in cargo holds	
<u>Requirements for Double Skin Bulk Carriers</u>	
1 <u>Structural members in ballast tanks</u>	(1) When extensive corrosion is found in the examination of ballast tanks specified in Table B3.4 which is required for double skin bulk carriers 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 5.2.6-5 .
2 <u>Double side skin void spaces</u>	(1) When extensive corrosion is found in the examination of void spaces specified in Table B3.4 which is required for double skin bulk carriers over 20 years of age and of 150 m in length and upwards, 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 5.2.6-5 .
3 <u>Hatch covers and hatch coamings</u>	(1) When deemed necessary by the Surveyor as a consequence of the close-up survey required in Table B3.5 for double skin bulk carriers, 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 5.2.6-5 .
(Omitted)	

Chapter 4 INTERMEDIATE SURVEYS

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

4.2.4 Internal Examinations of Spaces and Tanks*

Table B4.2 has been amended as follows.

Table B4.2 Internal Examinations of Spaces and Tanks

Items	Examinations
(Omitted)	
Requirements for Bulk Carriers	
1 Engine room and boiler room	(1) An internal examination is to be carried out on all aspects.
2 Ballast tanks	(1) For bulk carriers over 5 <i>years</i> and up to 10 <i>years</i> of age, an internal examination of representative ballast tanks and combined cargo/ballast tanks, if any, is to be carried out. 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, the examination is to be extended to other ballast tanks of the same type. (2) If such examinations reveal no visible structural defects, the examination may be limited to a verification that the corrosion prevention system remains effective. (3) For ballast tanks where a protective coating is found in poor <u>less than good</u> condition, and it is not renewed or where a protective coating has not been applied from the time of construction, excluding double bottom tanks, an internal examination is to be carried out at annual intervals. For double bottom ballast tanks in this condition, where considered necessary by the Surveyor, an internal examination is to be carried out at annual intervals.
3 Cargo holds	(1) For bulk carriers over 5 <i>years</i> of age, an internal examination of all cargo holds is to be carried out.
(Omitted)	

Chapter 5 SPECIAL SURVEYS

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

5.2.4 Internal Examinations of Spaces and Tanks*

Sub-paragraph -4 has been renumbered to Sub-paragraph -5, and Sub-paragraph -4 has been added 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 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.

45 At Special Survey No. 3 and subsequent special surveys, in addition to **-1** to **-3**, structural downflooding ducts and structural ventilation ducts are to be internally examined.

Table B5.3 has been amended as follows.

Table B5.3 Additional Requirements of Internal Examinations for Bulk Carriers

<u>Special Survey</u>	<u>Tanks and spaces</u> <u>subject to examination</u>	<u>Notes</u>
<u>Requirements for Bulk Carriers other than Double Skin Bulk Carriers</u>		
<u>1 All Special Surveys</u>	<u>1 Ballast tanks</u>	<p>(1) As a result of internal examinations, ballast tanks (excluding double bottom tanks) with conditions shown in (a) or (b) require an internal examination to be carried out at annual intervals.</p> <p>(a) The protective coating is found in less than GOOD condition and is not repaired to the satisfaction of the Surveyor.</p> <p>(b) The protective coating has not been applied from the time of construction.</p>
<u>Requirements for Double Skin Bulk Carriers</u>		
<u>1 All Special Surveys</u>	<u>1 Ballast tanks</u>	<p>(1) As a result of internal examinations, ballast tanks (excluding double bottom tanks) with conditions shown in (a) or (b) require an internal examination to be carried out at annual intervals.</p> <p>(a) The protective coating is found in less than GOOD condition and is not repaired to the satisfaction of the Surveyor.</p> <p>(b) The protective coating has not been applied from the time of construction.</p>
	<u>1 Double side skin void spaces</u>	<p>(1) As a result of internal examinations, double-side skin void spaces bounding cargo holds for bulk carriers exceeding 20 years of age and of 150 m in length and upwards with conditions shown in (a) or (b) require an internal examination to be carried out at annual intervals.</p> <p>(a) The protective coating is found in POOR condition and is not repaired to the satisfaction of the Surveyor.</p> <p>(b) The protective coating has not been applied from the time of construction.</p>

5.2.7 Pressure Tests*

Sub-paragraph -3 has been amended as follows.

3 At Special Surveys for oil tankers and ships carrying dangerous chemicals in bulk with integral tanks, notwithstanding the provisions of -2 above, a pressure test is to be carried out for tanks listed in **Table B5.23-1**. With respect to the pressure tests for the cargo tanks of tankers and ships carrying dangerous chemicals in bulk, when pressure tests are conducted in the presence of the Master or any other representative personnel of the ship, such pressure tests may be regarded as the pressure tests required for Special Surveys at the discretion of the Surveyor provided the following (1) to (56) conditions are complied with. For pressure tests conducted in the presence of the master or any other representative personnel, guidance is specified in **Annex 5.2.7**. For double hull oil tankers and ships carrying dangerous chemicals in bulk with integral tanks, any testing of double bottom tanks and other watertight compartments not designed to carry liquids may be omitted, provided that satisfactory internal and/or external examinations are carried out.

- (1) The procedure (including information such as fill heights, the tanks being filled and the bulkheads being tested) for the pressure test has been submitted by the owner and reviewed by the Society prior to the pressure test being carried out.
- (2) The pressure test is carried out prior to internal examination or close-up survey.
- (3) The pressure test is carried out at the time of the special survey and not more than 3 months prior to the date on which the internal examination or close-up survey is completed.
- (24) ~~There~~ The pressure test has been satisfactorily carried out and there is no record of leakage, distortion or substantial corrosion that would affect the structural integrity of the tank.
- ~~(3) The pressure test has been satisfactorily carried out within special survey window not more than 3 months prior to the date of the survey on which the internal examination or close-up survey is completed.~~
- (45) The satisfactory results of the pressure test are recorded in the ship's logbook.
- ~~(56)~~ The internal and external condition of the tanks and associated structure are found satisfactory by the Surveyor at the time of the internal examination and close-up survey.

EFFECTIVE DATE AND APPLICATION (Amendment 2-5)

1. The effective date of the amendments is 1 July 2024.
2. Notwithstanding the amendments to the Rules, the current requirements apply to the surveys commenced before the effective date.

Chapter 2 CLASSIFICATION SURVEYS

2.1 Classification Survey during Construction

2.1.2 Submission of Plans and Documents for Approval*

Sub-paragraph -1(2) 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) is omitted.)

(2) Machinery

((a) to (n) are omitted.)

(o) Computer-based systems

Plans and data specified in 2.1.1(1), Part X

((3) to (7) are omitted.)

2.1.3 Submission of Other Plans and Documents

Sub-paragraph -1(7) has been amended as follows.

1 When it is intended to build a ship to the classification with the Society the following plans and documents are to be submitted, in addition to those required in **2.1.2**:

((1) to (6) are omitted.)

(7) The following plans and documents related to machinery:

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

(h) Computer-based systems:

Plans and data specified in 2.1.1(2), Part X

((8) to (17) are omitted.)

2.1.4 Presence of Surveyor*

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

2 The presence of the surveyor is required at the following stages of the work in relation to machinery. To implement surveys of items specified otherwise by the Society, in lieu of traditional ordinary surveys where the surveyor is in attendance, the Society may approve other survey methods which it considers to be appropriate in the following cases.

((1) is omitted.)

(2) Main parts of machinery

(a) When the tests stipulated in either **Part D** or **Part H** (according to the kind of machinery) and Part X are carried out.

((b) to (e) are omitted.)

((3) to (6) are omitted.)

Chapter 3 ANNUAL SURVEYS

Table B3.1 has been amended as follows.

Table B3.1 Examination of Plans and Documents

Items	Examination
	(Omitted)
<u>15 Procedures for software and hardware change management and relevant change records</u>	<p>(1) <u>Confirmation that the procedures for software and hardware change management are kept on board in accordance with 3.6.12-1, Part X.</u></p> <p>(2) <u>Confirmation that the change records are updated in accordance with 3.6.11 and 3.6.12-1, Part X.</u></p>

EFFECTIVE DATE AND APPLICATION (Amendment 2-6)

1. The effective date of the amendments is 1 July 2024.
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.
 * “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.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part B

Class Surveys

GUIDANCE

2023 AMENDMENT NO.2

Notice No.63

22 December 2023

Resolved by Technical Committee on 27 July 2023

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

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

Part B CLASS SURVEYS

Amendment 2-1

B1 GENERAL

B1.1 Surveys

B1.1.3 Intervals of Class Maintenance Surveys

Sub-paragraph -3(5) has been deleted.

3 The Occasional Surveys specified in **1.1.3-3(5), Part B of the Rules** are as specified below:
((1) to (4) are omitted.)

- (5) ~~Water level detection and alarm systems on single hold cargo ships (Deleted)~~
~~For cargo ships having a single cargo hold below the freeboard deck or cargo holds below the freeboard deck which are not separated by at least one bulkhead made watertight up to that deck, a survey is to be carried out to verify that the water level detection and alarm systems specified in 13.8.6, Part D of the Rules are provided not later than the date of the first intermediate or special survey of the ship after 1 January 2007. Notwithstanding the above, the following ships are not required to have such a system:~~
- ~~(a) Ships of less than 500 gross tonnage~~
 - ~~(b) Ships not engaged on international voyages~~
 - ~~(c) Bulk carriers as defined in 1.3.1(13), Part B of the Rules which had been at the beginning stage of construction before 1 July 2006~~
 - ~~(d) Bulk carriers as defined in An1.1.2(1), Annex 1.1, Part 2-2, Part C of the Rules which had been at the beginning stage of construction on or after 1 July 2006~~
 - ~~(e) Ships having a length (L) of not less than:~~
 - ~~i) 80 m, for ships that had been at the beginning stage of construction on or after 1 July 1998~~
 - ~~ii) 100 m, for ships that had been at the beginning stage of construction before 1 July 1998~~
 - ~~(f) Ships complying with the requirements of 13.8.6, Part D of the Rules~~
 - ~~(g) Ships having watertight side compartments each side of the cargo hold length extending vertically at least from inner bottom to freeboard deck and breadths of which are not to be less than 760 mm measured perpendicular to the side shell~~
- ((6) to (24) are omitted.)

B3 ANNUAL SURVEYS

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

B3.2.3 Performance Tests

Sub-paragraph -6 has been amended as follows.

6 Inspection of ~~W~~ater ~~L~~evel ~~D~~etection and ~~A~~larm ~~S~~ystems (refer to **13.8.5, Part D of the Rules, 13.8.6 and 13.8.7, 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 **An1.1.2(1), Annex 1.1, Part 2-2, Part C of the Rules**, which had been at the beginning stage of construction on or after 1 July 2006
- (3) Cargo ships having multiple cargo holds (excluding bulk carriers defined in **Annex 1.1 An1.2.1(1), Part 2-2, Part C of the Rules** and tankers) that fall under any of the following:
 - (a) for which the building contract is placed on or after 1 January 2024;
 - (b) in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2024; or
 - (c) the delivery of which is on or after 1 January 2028

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 January 2024.
2. Notwithstanding the amendments to the Guidance, the current requirements apply to ships other than ships that fall under the following:
 - (1) for which the contract for construction is placed on or after the effective date; or
 - (2) in the absence of a contract for construction, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2024; or
 - (3) the delivery of which is on or after 1 January 2028.(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.

B1 GENERAL

B1.1 Surveys

B1.1.3 Intervals of Class Maintenance Surveys

Sub-paragraph -3(22) has been amended as follows.

3 The Occasional Surveys specified in **1.1.3-3(5), Part B of the Rules** are as specified below:
((1) to (21) are omitted.)

(22) Ships using low-flashpoint fuels

- (a) For ships that fall under the following **i)** or **ii)**, a survey is to be carried out to verify compliance with the requirements of **Part GF of the Rules** before using low-flashpoint fuels or undertaking to use different low-flashpoint fuels than specified:
 - i) Ships which convert to using low-flashpoint fuels on or after 1 January 2017; or
 - ii) Ships which, on or after 1 January 2017, undertake to use low-flashpoint fuels different from those which they were originally approved to use before 1 January 2017.
- (b) For ships that fall under the following **i)** or **ii)**, a survey is to be carried out to verify compliance with the requirements of **GF11.3.1-1, GF11.3.1-2, GF12.5.2-2 and GF15.10.1, Part GF of the Guidance** before using low-flashpoint fuels or undertaking to use different low-flashpoint fuels than specified:
 - i) Ships which convert to using low-flashpoint fuels on or after 1 July 2019; or
 - ii) Ships which, on or after 1 July 2019, undertake to use low-flashpoint fuels different from those which they were originally approved to use before 1 July 2019.
- (c) For ships that fall under the following **i)** or **ii)**, a survey is to be carried out to verify compliance with the requirements of **11.8.1, Part GF of the Rules and GF11.3.1-2, Part GF of the Guidance** before using low-flashpoint fuels or undertaking to use different low-flashpoint fuels than specified:
 - i) Ships which convert to using low-flashpoint fuels on or after 1 January 2024; or
 - ii) Ships which, on or after 1 January 2024, undertake to use low-flashpoint fuels different from those which they were originally approved to use before 1 January 2024.

((23) to (24) are omitted.)

B2 CLASSIFICATION SURVEYS

B2.1 Classification Survey during Construction

B2.1.6 Documents to be Maintained On Board

Sub-paragraph -10 has been added as follows.

10 The management plans for inspection and maintenance of mooring equipment (including mooring lines) specified in 2.1.6-1.(2)(y), Part B of the Rules are to be prepared in accordance with MSC.1/Circ.1620 and are to include the following (1) to (6).

- (1) Procedures for mooring equipment (including mooring lines) operations, inspection and maintenance.
- (2) Procedures to allow the identification and management of mooring lines, tails and associated attachments.
- (3) Manufacturer criteria for mooring line replacement.
- (4) Records of the original mooring design concepts, equipment, arrangements and specifications. For ships the keels of which were laid before 1 January 2007 and which are without appropriate documentation, MBL_{sd} should be established in accordance with the following (a) and (b).
 - (a) MBL_{sd} should be established based on the Safe Working Load (SWL) of the mooring equipment provided on board.
 - (b) If no safe working load is specified, the strength of the mooring equipment and its supporting hull structure should be checked based on 14.4.3, Part1, Part C of the Rules and determine MBL_{sd} based on the actual capacity of the equipment on board and its supporting hull structure.
- (5) Manufacturers' test certificates for mooring lines, joining shackles and synthetic tails
- (6) Records of mooring equipment inspections and maintenance, and mooring line inspections and replacement.

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 January 2024.

B9 PLANNED MACHINERY SURVEYS

B9.1 Planned Machinery Surveys

B9.1.4 Condition Based Maintenance Scheme (CBM)

Sub-paragraph -5(2) has been amended as follows.

5 Approval of CBM

Conditions for approval of CBM are as follows:

((1) is omitted.)

(2) Condition monitoring system

The condition monitoring system is to satisfy the following requirements specified in (a) to (h). In cases where this system is modified, that modification is to be approved by the Society.

((a) is omitted.)

(b) The hardware and software of the computer is to comply with **B9.1.3-4(5)(a) to (e)** and ~~Annex 18.1.1~~ **Chapters 1, 2 and 3, Part D~~X~~** of the Rules.

((c) to (h) are omitted.)

((3) to (7) are omitted.)

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 July 2024.
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.
* “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.