

RULES FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS

Rules for the Survey and Construction of Inland Waterway Ships

2022 AMENDMENT NO.2

Guidance for the Survey and Construction of Inland Waterway Ships

2022 AMENDMENT NO.2

Rule No.94/ Notice No.69 27 December 2022

Resolved by Technical Committee on 27 July 2022

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 INLAND WATERWAY SHIPS

RULES

2022 AMENDMENT NO.2

Rule No.94 27 December 2022

Resolved by Technical Committee on 27 July 2022

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

AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS

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

Amendment 2-1

Part 2 CLASS SURVEYS

Chapter 1 GENERAL

1.1 Surveys

1.1.3 Intervals of Class Maintenance Surveys*

Sub-paragraph -3 has been amended as follows.

3 The classed ships are to be subject to Occasional Surveys when they fall under one of the conditions of (1) through (6) below. Periodical Surveys may substitute for the Occasional Surveys where the survey items of the Occasional Surveys are inspected as a part of the Periodical Surveys. ~~To implement the survey, in lieu of the traditional ordinary surveys where a surveyor is in attendance, the Society may approve survey methods which it considers to be appropriate.~~ ((1) to (6) are omitted.)

1.3 Definitions

1.3.1 Terms*

Sub-paragraph (13) has been added as follows.

(13) “Remote survey” is a process for verifying that ships and its equipment are in compliance with the Rules of the Society where the verification is undertaken, or partially undertaken, without attendance on site by a Surveyor.

1.4 Preparation for Surveys and Miscellaneous

Paragraph 1.4.7 has been added as follows.

1.4.7 Class Survey by Means of Remote Survey

Although the survey method for class maintenance survey is generally attendance on site by a Surveyor, the Society may approve survey methods different from the traditional ordinary survey with attendance by a Surveyor, provided that survey is carried out in accordance with the requirements specified in Annex 1.5.3 “CLASS MAINTAINANCE SURVEY BY MEANS OF REMOTE SURVEY”, Part B of the Rules for the Survey and Construction of Steel Ships. However, in the case of matters stipulated in international conventions or instructions from Administrations, this may only be done with Administration acceptance.

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 January 2023.
2. Notwithstanding the amendments to the Rules, the current requirements apply to the remote surveys for which the application is submitted to the Society before the effective date.

Part 2 CLASS SURVEYS

Chapter 1 GENERAL

1.4 Preparation for Surveys and Miscellaneous

1.4.5 Procedure for Tests, Wear and Tear, etc.

Sub-paragraph -1 has been amended as follows.

1 Inclining Test

~~An Inclining test is to be carried out at the Class Maintenance Survey, w~~Where alterations or repairs which might greatly affect the ship's stability have been made and/or the Surveyor deems it necessary, **2.5.1-2, Part B of the Rules for Survey and Construction of Steel Ships** is to be followed to determine the need for re-inclining tests, and the need for amending stability information.

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 January 2023.

Part 7 MACHINERY INSTALLATIONS

Chapter 2 RECIPROCATING INTERNAL COMBUSTION ENGINES

2.5 Associated Installations

Paragraph 2.5.3 has been amended as follows.

2.5.3 Starting Arrangements

1 The starting air mains are to be protected against explosion caused by back=fire from the cylinders or excessive temperature rise in the starting air manifold at the time of starting by the following arrangements **(1)** and **(2)**:

- (1) An isolating non-return valve or equivalent thereto is to be provided at the starting air supply connection to each engine.
- (2) An adequate rupture disc device or a flame arrester is to be fitted at the starting valve on each cylinder for direct reversing engines having a starting air manifold. At least one such device is to be fitted at the supply inlet to the starting air manifold for each non-reversing engine. However, the above mentioned device may be omitted for engines having cylinder bore not exceeding 230 mm.

2 Where main propulsion engines are arranged for starting by compressed air, at least two starting air reservoirs are to be provided. These reservoirs are to be connected so that usage can be readily switched from one to the other. In this case, the total capacity of the starting air reservoirs is to be sufficient to provide, without replenishment, the number of consecutive starts not less than that specified in **(1)** to **(3)** below. Where the arrangements of the main propulsion engines and shafting systems are other than shown below, the required number of starts is to be as deemed appropriate by the Society. When other consumers such as auxiliary machinery starting systems, control systems, whistles, etc. are to be connected to starting air reservoirs, their air consumption is also to be taken into account.

- (1) For direct reversible engines

$$Z = 12C$$

Where:

Z: Total number of starts of engine

C: Constant determined by the arrangement of main propulsion engines and shafting systems, where the following values are to be referred to as the standard;

$C = 1.0$ For single screw ships, where one engine is either coupled with the shaft directly or through reduction gears.

$C = 1.5$ For twin screw ships, where two engines are either coupled with the shafts directly or through reduction gear. Or, for single screw ships, where two engines are coupled with the shaft through declutchable coupling provided between engine and reduction gear.

$C = 2.0$ For single screw ships, where two engines are coupled with one shaft without any declutchable coupling between engine and reduction gear.

- (2) For non-reversible type engines using a separate reversing gear or controllable pitch propeller, 1/2 of the total number of starts specified in **(1)** above may be accepted.

- (3) For electric propulsion ships:

$$Z = 6 + 3(k - 1)$$

Where:

Z: Total number of starts of engine

k: Number of engines (In the case of more than 3 engines, the value of *k* to be used is 3.)

3 The capacities of the reservoirs specified in -2 above are to be about the same.

~~54~~ ~~The Starting air reservoirs and starting air systems are also to comply with the requirements in 11.13.~~

~~35~~ ~~Where main propulsion engines are arranged for starting by battery, 2 sets of batteries are to be provided. The total capacity of the batteries is to be sufficient, without recharging, to provide the number of starts of the main propulsion engine required in -2 within 30 minutes. Internal combustion engines arranged for electrical starting are to comply with the following (1) to (3):~~

(1) Two separate batteries are to be fitted to starting arrangements for main propulsion machinery. Arrangements are to be such that the batteries cannot be connected in parallel, and each battery is to be capable of starting the main propulsion machinery under the cold and ready-to-start condition. The combined capacity of the batteries is to be sufficient (without recharging) to provide the number of consecutive starts specified in -2 above within 30 minutes.

(2) Electric starting arrangements for internal combustion engines driving generators and auxiliary machinery are to have two separate batteries but may be supplied by separate circuits from the batteries for main propulsion machinery. In the case of single auxiliary engines, only one battery needs to be fitted. The capacity of each set of batteries is to be sufficient for at least three starts for each engine.

(3) Starting batteries are to be used for starting and engine self-monitoring purposes only. Provisions are to be made to continuously maintain stored energy at all times.

~~4~~ ~~The starting arrangements of reciprocating internal combustion engines which drive generators or auxiliaries are to be as deemed appropriate by the Society.~~

Chapter 11 PIPING SYSTEMS

11.13 Pneumatic Piping Systems

11.13.3 Number and Total Capacity of Air Compressors

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

1 In cases where the main propulsion machinery is designed for starting by compressed air, two or more starting air compressors are to be provided and arranged so as to be able to charge each air reservoir. However, in cases where cylinders are provided with air charging valves, these charging valves will be considered to be equivalent to any air compressors driven by the main propulsion machinery.

2 One of the air compressors prescribed in -1 is to be driven by a prime mover that is not the main propulsion machinery. Such compressor is to have a capacity not less than 50 % of the total capacity specified in -3.

3 The total capacity of air compressors is to be sufficient to supply air into the air reservoirs from atmospheric pressure to the pressure required for the consecutive starts prescribed in **2.5.3-2** within one *hour*. The capacity is to be approximately equally divided between the number of starting air compressors (excluding emergency compressors installed to satisfy **1.3.1-5**) fitted for main propulsion machinery.

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 January 2023.
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.

Part 8 ELECTRICAL INSTALLATIONS

Chapter 2 ELECTRICAL INSTALLATIONS AND SYSTEM DESIGN

2.11 Accumulator Batteries

Paragraph 2.11.1 has been amended as follows.

2.11.1 General*

1 The requirements given in this **2.11** apply to all permanently installed vented types of secondary batteries. However, the requirements specified in **2.11.5-4** are also applicable to valve-regulated sealed types of batteries.

2 Accumulator battery systems consisting of lithium-ion batteries with total capacities of 20 kWh or more and associated equipment are to be in accordance with **Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships**.

~~**3**~~ Any usage of types of secondary batteries other than vented types of secondary batteries and the secondary batteries specified in -2 above is required to be as deemed appropriate by the Society.

~~**4**~~ Accumulator batteries are to be able to suitably perform with respect to their intended service.

Part 9 FIRE PROTECTION, DETECTION AND EXTINCTION

Chapter 1 GENERAL

1.1 General

1.1.1 Application

Sub-paragraph -4 has been added as follows.

4 Accumulator battery systems consisting of lithium-ion batteries with total capacities of 20 kWh or more and associated equipment are to also be in accordance with 1.2.3, Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships.

EFFECTIVE DATE AND APPLICATION (Amendment 2-4)

1. The effective date of the amendments is 1 January 2023.
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.
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.

* “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.

Part 7 MACHINERY INSTALLATIONS

Chapter 12 STEERING GEARS

12.1 General

Paragraph 12.1.2 has been amended as follows.

12.1.2 Terminology

The terms used in this Chapter are defined as follows:

- (1) A “main steering gear” is defined as the machinery, rudder actuators, steering gear power units, if any, and ancillary equipment and the means of applying torque to the rudder stock (tiller, etc.) necessary for effecting movement of the rudder for the purpose of steering the ship under normal service conditions.
- (2) An “auxiliary steering gear” is defined as the equipment other than any part of the main steering gear necessary to steer the ship in the event of failure of the main steering gear but not including tiller, etc.
- (3) A “steering gear power unit” (hereinafter referred to as “power unit”) is:
 - (a) in the case of electric gear: an electric motor and its associated electrical equipment;
 - (b) in the case of electrohydraulic steering gear: a hydraulic pump, electric motor and its associated electrical equipment; and
 - (c) in the case of hydraulic steering gear other than those in (b), a hydraulic pump and its driving engine.
- (4) A “power actuating system” is defined as the hydraulic equipment provided for supplying power to turn the rudder stock, comprising a power unit or units, together with the associated hydraulic pipes and fittings, and a rudder actuator. The power actuating systems may share common mechanical components, *i.e.*, tiller, etc.
- (5) A “rudder actuator” is defined as the component which converts directly hydraulic pressure into mechanical action to move the rudder.
- (6) A “control system” is defined as the equipment by which orders are transmitted from the navigating bridge to the power units. Steering gear control systems comprise transmitters, receivers, hydraulic control pumps and their associated motors, motor controllers, piping and cables. Steering gear control systems are also understood to cover “equipment required to control steering gear power actuating systems”.
- (7) “Maximum working pressure” means the maximum expected pressure in the system when the steering gear is operated under the conditions specified in 12.2.2(1).
- (8) “Hydraulic locking” means all situations where two hydraulic systems (usually identical) oppose each other in such a way that may lead to loss of steering. Such a loss of steering can either be caused by pressure in the two hydraulic systems working against each other or by hydraulic “by-pass” (i.e. the systems puncture each other and cause pressure drop on both sides or make it impossible to build up pressure).

Title of Paragraph 12.1.4 has been amended as follows.

12.1.4 Display of Operating Instructions, etc.*

(-1 and -2 are omitted.)

12.3 Controls

12.3.1 General*

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

3 For the control systems specified in the requirements of **-1(2)** above, at least the following most probable failures that may cause reduced or erroneous system performance are to be automatically detected and individual visible and audible alarms are to be given on the navigation bridge:

- (1) Power supply failure
- (2) Earth fault on AC and DC circuits
- (3) Loop failure in closed loop systems, both command and feedback loops (normally short circuit, broken connections and earth faults)
- (4) Data communication errors
- (5) Programmable system failures (Hardware and software failures)

~~(6) Hydraulic locking~~

~~(7)~~ In the case of closed loop systems, deviation between rudder order and feedback Individual visible and audible deviation alarms are to be initiated on the navigation bridge when the rudder's actual position does not reach its set point within acceptable time limits (e.g., follow-up control and autopilot). The deviation alarm may be caused by mechanical, hydraulic or electrical failures.

4 For the control systems specified in the requirements of **-1(2)** above, the failures (as defined but not limited to those in **-3** above) likely to cause uncontrolled movement of the rudder are to be clearly identified. In the event of that failure, following response is to be implemented:

- (1) the rudder is to stop in the angle when failure occurs without manual intervention, or
- (2) the rudder is to return to the midship/neutral position.

For mechanical failures such as sticking valves and failure of static components (pipes, cylinders), system response without manual intervention is not mandatory, and operators may instead follow instructions permanently displayed in accordance with **12.1.4-2** in the case of such failures.

EFFECTIVE DATE AND APPLICATION (Amendment 2-5)

1. The effective date of the amendments is 1 July 2023.
 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.
 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.
- * “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 INLAND WATERWAY SHIPS

GUIDANCE

2022 AMENDMENT NO.2

Notice No.69 27 December 2022

Resolved by Technical Committee on 27 July 2022

Notice No.69 27 December 2022

AMENDMENT TO THE GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS

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

Amendment 2-1

Part 2 CLASS SURVEYS

Chapter 1 GENERAL

1.1 Surveys

1.1.2 Class Maintenance Surveys

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

1 Modifications and changes that are subject to Occasional Surveys referred to in **1.1.2-2(3), Part 2 of the Rules** are as specified in **(1)** through **(5)** below:

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

(3) ~~Change in~~ Amendment of the loading manuals, the stability information and other similar documents

When a modification is intended that alters the principal data of the ship, ~~a new loading manual, stability information and other similar documents are to be prepared based on the new data and approved by the Society. When differences of light weight and lightship longitudinal centre of gravity from the original values to values calculated for after conversion exceed either of the following limits, an inclining test is to be carried out~~ **B2.5.1-7 to -9, Part B of the Guidance for Survey and Construction of Steel Ships** are to be followed to determine the need for re-inclining tests, and the need for amending stability information.

~~(a) Light weight: 2% of the original value or 2 tonnes, whichever is greater~~

~~(b) Lightship longitudinal centre of gravity: 1% of length of ship (L)~~

((4) and (5) are omitted.)

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 January 2023.

Part 2 CLASS SURVEYS

Chapter 1 GENERAL

1.1 Surveys

1.1.3 Intervals of Class Maintenance Surveys

Sub-paragraph -5 has been deleted.

~~5 The wording “the Society may approve the survey methods which it considers to be appropriate.” in 1.1.3-3, Part 2 of the Rules means survey methods which the Society considers to be able to obtain information equivalent to that obtained through traditional ordinary surveys where a surveyor is in attendance.~~

Sub-paragraph -6 has been renumbered to Sub-paragraph -5.

65 With respect to the wording “whenever the survey is considered necessary by the Society” in **1.1.3-3(6), Part 2 of the Rules** means, for example, a case where abnormal conditions are observed from the measurement data of vibration measurement system or Fe-density measurement system used instead of the temperature sensors and the temperature recorder of the azimuth thrusters which adopts roller bearings for propeller shafts bearings. In this case, abnormal conditions are to be reported to the Society immediately. Upon review of the reports, the Society may request an occasional survey when considered necessary.

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 January 2023.
2. Notwithstanding the amendments to the Guidance, the current requirements apply to the remote surveys for which the application is submitted to the Society before the effective date.

Part 2 CLASS SURVEYS

Chapter 3 ANNUAL SURVEYS

3.3 Annual Surveys for Machinery

Paragraph 3.3.2 has been amended as follows.

3.3.2 Performance Tests

1 Performance tests of the equipment stipulated in items 6(a) and (b) of **Table 2.3.6, Part 2 of the Rules** may be dispensed with provided the Surveyor is satisfied with the results of the general examination of that equipment.

2 For ships equipped with accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships is applied, the tests referred to in 1.2.7, Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships are to be carried out.

Chapter 4 INTERMEDIATE SURVEYS

Section 4.3 has been added as follows.

4.3 Intermediate Surveys for Machinery

4.3.1 General Examinations

1 For ships equipped with accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships is applied, the conditions of the accumulator battery systems are to be examined in detail with measuring the insulation resistance of main circuit of accumulator battery systems and associated equipment. In addition, it is to be confirmed that the maintenance, management, etc. of such systems are properly carried out in accordance with 1.2.8, Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships.

Chapter 5 SPECIAL SURVEYS

5.3 Special Surveys for Machinery

Paragraph 5.3.1 has been added as follows.

5.3.1 General Examinations

1 For ships equipped with accumulator battery systems to which Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships is applied, the conditions of the accumulator battery systems are to be examined in detail with measuring the insulation resistance of main circuit of accumulator battery systems and associated equipment. In addition, it is to be confirmed that the maintenance, management, etc. of such systems are properly carried out in accordance with 1.2.8, Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships.

Part 8 ELECTRICAL INSTALLATIONS

Chapter 1 GENERAL

1.1 General

1.1.6 Drawings and Data

Sub-paragraph -5 has been added as follows.

5 In applying **1.1.6(1) and (2), Part 8 of the Rules**, the drawings and documents referred to in **1.1.3, Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships** are to be submitted for ships equipped with accumulator battery systems to which **Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships** is applied.

1.2 Testing

Paragraph 1.2.1 has been amended as follows.

1.2.1 Shop Tests

1 The wording “survey methods which it considers to be appropriate” in **1.2.1-1, Part 8 of the Rules**, and the wording “tests for any equipment with small capacities as specified in (4) and (5) are to be conducted as deemed appropriate by the Society” specified in **1.2.1-1, Part 8 of the Rules** mean to be in accordance with the following (1) and (2) respectively:

- (1) The wording “survey methods which it considers to be appropriate” means survey methods which the Society considers to be able to obtain information equivalent to that obtained through traditional ordinary surveys where surveyor is in attendance, notwithstanding any of the requirements in this Part.
- (2) The wording “tests for any equipment with small capacities as specified in (4) and (5) are to be conducted as deemed appropriate by the Society” means those shop tests for electrical motors whose capacities at continuous ratings are less than 100 kW and controlgears of those motors may be substituted for by manufacturer tests. In such cases, submission or presentation of test records may be required by the Society.

2 Those “motors for essential services” specified in **1.2.1-1(4), Part 8 of the Rules** means those driving auxiliary machinery corresponding to auxiliary machinery essential for main propulsion, auxiliary machinery for manoeuvring and the safety, and auxiliary machinery for cargo handling specified in **Table 7.1.1.5-1, Part 7**.

3 In applying **1.2.1-1(7), Part 8 of the Rules**, the tests for cells (or modules), accumulator battery systems and electrical power converters referred to in **Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships** are to be carried out for ships equipped with accumulator battery systems to which **Annex 2.11.1-2, Part H of the Rules for the Survey and Construction of Steel Ships** is applied.

34 The wording “subject to Society approval” in **1.2.1-3, Part 8 of the Rules** means compliance with the requirements given in the **Rules for Approval of Manufacturers and Service Suppliers**. Equipment and cables approved are made public ~~on~~ in the **List of Approved Materials and Equipment**.

45 The wording “to be subjected to type tests” in **1.2.1-4, Part 8 of the Rules** means **Part 8 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine**

Use. Equipment and cables approved are made public ~~on~~ in the **List of Approved Materials and Equipment**.

~~56~~ Cables requiring type approval are as follows:

- (1) Cables used for power feeding systems and power distribution circuits for power, lighting and internal communications and used for control circuits
- (2) Flexible cords used for feeding power systems and power distribution circuits and control circuits
- (3) Multicore vinyl insulated cables for 150 V electronic equipment

~~67~~ Type tests may be carried out for flexible cords, vinyl sheathed cords, insulated cables for switchboards and control equipment, coaxial cables, etc., other than those specified in ~~56~~ above in cases where a request is made by the manufacturer.

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 1 January 2023.
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.
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.

* “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.

Part 7 MACHINERY INSTALLATIONS

Chapter 2 RECIPROCATING INTERNAL COMBUSTION ENGINES

2.5 Associated Installations

Paragraph 2.5.3 has been deleted.

~~2.5.3 Starting Arrangements~~

~~1 For main propulsion machinery starting arrangements operated by compressed air, the following requirements, in addition to those in 2.5.3, Part 7 of the Rules, are to be complied with:~~

- ~~(1) Starting air reservoirs for main propulsion machinery are to be of approximately the same capacity.~~
- ~~(2) For ships designed to use the compressed air stored in starting air reservoirs for main propulsion machinery for purposes other than starting, the capacity of such air reservoirs is to take into account total compressed air consumption.~~
- ~~(3) For main propulsion machinery starting arrangements operated by compressed air, at least one of the starting air compressors is to be driven by a power source other than one used for the main propulsion machinery, and the capacity of this compressor is to be 50% or more of the total capacity specified in 2.5.3-2, Part 7 of the Rules.~~
- ~~(4) Starting air compressors for main propulsion machinery are to be of approximately the same capacity.~~

~~2 For reciprocating internal combustion engine starting arrangements operated by batteries, the following requirements, in addition to 2.5.3-3, Part 7 of the Rules, are to be complied with:~~

- ~~(1) Two sets of batteries provided for starting main propulsion machinery are to be arranged so that no parallel connections can be made, and so that each battery is capable of starting main propulsion machinery in a cold state after all of the starting preparations have been completed.~~
- ~~(2) The starting arrangements for reciprocating internal combustion engines driving main generators are to be such that either they are provided with two sets of separate batteries; or a single battery set in cases where power for starting can also be fed through a separate circuit from those batteries used for the starting of main propulsion machinery. However, a single battery set may only be accepted in cases where only one main generator engine is provided. The capacity of this single battery set is to be such that it is sufficient for starting the engine at least three times.~~
- ~~(3) Batteries for starting are to be used only for starting and for monitoring reciprocating internal combustion engines. Arrangements are to be made so that the energy stored in the batteries can be maintained at all times.~~

EFFECTIVE DATE AND APPLICATION (Amendment 2-4)

1. The effective date of the amendments is 1 January 2023.
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.

Part 7 MACHINERY INSTALLATIONS

Chapter 12 STEERING GEARS

12.1 General

Paragraph 12.1.4 has been added as follows.

12.1.4 Display of Operating Instructions, etc.

The “appropriate instructions for emergency procedures” specified in 12.1.4-2, Part 7 of the Rules are to simply indicate those emergency procedures corresponding to the design of steering gear (for example, procedures for shutting down failed systems indicated by alarm systems) and are to be provided at suitable places at steering control posts on navigation bridges.

EFFECTIVE DATE AND APPLICATION (Amendment 2-5)

1. The effective date of the amendments is 1 July 2023.
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.
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.

* “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.