
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part C

Hull Construction and Equipment

RULES

2021 AMENDMENT NO.1

Rule No.29 30 June 2021

Resolved by Technical Committee on 27 January 2021

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 STEEL SHIPS

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

Part C HULL CONSTRUCTION AND EQUIPMENT

Chapter 13 WATERTIGHT BULKHEADS

13.3 Watertight Doors

Paragraph 13.3.6 has been amended as follows.

13.3.6 Alarms*

~~Watertight doors which are capable of being remotely closed are to be provided with an audible alarm which will sound at the door position whenever such a door is remotely closed.~~

1 Failure of the normal power supply of alarms required to be installed by 13.3.6-2 and 13.3.6-3 is to be indicated by an audible and visual alarm. This alarm is to be located on the bridge.

2 Watertight doors which are capable of being remotely closed are to be provided with audible alarms which will sound at the door position whenever such doors are remotely closed.

3 All watertight doors (including sliding doors) operated by hydraulic door actuators, irrespective of whether their control positions are a central hydraulic unit or local operating position, are to be provided with either a low fluid level alarm, a low gas pressure alarm or some other means as applicable for monitoring the loss of stored energy in the hydraulic accumulators. Such alarms are to be both audible and visible and located on the bridge.

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 30 June 2021.
2. Notwithstanding the amendments to the Rules, the current requirements apply to ships the keels of which were laid or which were at *a similar stage of construction* before 9 June 2017.

(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.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

Part C

Hull Construction and Equipment

GUIDANCE

2021 AMENDMENT NO.1

Notice No.28 30 June 2021

Resolved by Technical Committee on 27 January 2021

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 C HULL CONSTRUCTION AND EQUIPMENT

Amendment 1-1

C13 WATERTIGHT BULKHEADS

C13.3 Watertight Doors

C13.3.1 General

Sub-paragraph -1 has been amended as follows.

1 With respect to the provisions of **13.3, Part C** of the Rules, watertight doors are categorized as the following (1) to (4) corresponding to their purpose and frequency of use.

- (1) Watertight doors which are to be permanently closed at sea
Such doors are open in port and closed before the ship leaves port (*e.g.* bulkhead doors for loading/unloading). The time of opening/closing such doors is to be entered in the log-book.
- (2) Watertight doors which are to be normally closed at sea
Such doors are kept closed at sea but may be used if authorized by the officer of the watch and to be closed again after use.
- ~~(3) Watertight doors which are normally open at sea
Such doors may be left open provided they are always ready to be immediately closed.~~
- (4) Watertight doors which are used at sea
~~Such doors are used regularly and may be left open provided they are ready to be immediately closed.~~
Kept closed, but may be opened during navigation when authorized by the Administration to permit the passage of passengers or crew, or when work in the immediate vicinity of the door necessitates it being opened. The door, however, is to be immediately closed after use.

Paragraph C13.3.6 has been amended as follows.

C13.3.6 Alarms

1 An audible alarm required by **13.3.6-2, Part C** of the Rules is to have a sound distinctive from any other alarms in the area, which will sound whenever the door is remotely closed.

~~2 Failure of the normal power supply of alarms required to be installed by **13.3.6, Part C** of the Rules is to be indicated by an audible and visual alarm.~~

~~3 With respect to the provisions of **13.3.6, Part C** of the Rules, all watertight doors (including sliding doors) operated by hydraulic door actuators, irrespective of whether their control positions are a central hydraulic unit or local operating position, are to be provided with either a low fluid level alarm, a low gas pressure alarm or some other means as applicable for monitoring the loss of stored energy in the hydraulic accumulators. This alarm is to be both audible and visible and located on the central operating console of the bridge.~~

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 30 June 2021.
2. Notwithstanding the amendments to the Guidance, the current requirements apply to ships the keels of which were laid or which were at *a similar stage of construction* before 9 June 2017.

(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.

C4 SUBDIVISIONS

C4.3 Openings

C4.3.1 Internal Openings

Table C4.3.1-1 has been amended as follows.

Table C4.3.1-1 Requirements for Closing Devices for Internal Openings

| Position relative to bulkhead or freeboard deck | Referenced requirement in Part C of the Rules | Frequency of use | Type of closing appliance | Remote closure | Open/close indicators | Audible or visual alarms | Notices | Notes |
|---|---|-----------------------------|---------------------------|----------------|-----------------------|--------------------------|---------|----------|
| Below | 4.3.1-2(2), 13.3.4-2 13.3.5, 13.3.6 | Used | POS | Yes | Yes | Yes (Local) | No | --- |
| | 4.3.1-2(3), 13.3.5-1 13.3.8-1 | Norm. Closed | S or H | No | Yes | No | Yes | *1, 6 |
| | 4.3.1-2(4), 13.3.4-3 13.3.8-2 | Perm. Closed (cargo spaces) | S or H | Prohibited | No | No | Yes | *3, 4, 7 |
| | 4.3.1-2(5), 13.3.8-2 | Perm. Closed (others) | | | | | | |
| At or above | 4.3.1-2(2), 13.3.4-2 13.3.5, 13.3.6 | Used | POS | Yes | Yes | Yes (Local) | No | *2, 5 |
| | 4.3.1-2(3), 13.3.5-1 13.3.8-1 | Norm. Closed | S or H | No | Yes | No | Yes | *1, 6 |
| | 4.3.1-2(4), 13.3.8-2 | Perm. Closed | S or H | Prohibited | No | No | Yes | *3, 4, 7 |

Notes:

- *1 : If hinged, this door is to be of a ~~quick acting or~~ single-action type.
- *2 : Under the “International Convention on Load Lines, 1966”, doors separating a main machinery space from a steering gear compartment may be hinged ~~quick acting~~ single-action types provided the lower sill of such doors is above the Summer Load Line and the doors remain closed at sea whilst not in use.
- *3 : The time of opening such doors in port and closing them before the ship leaves port is to be entered into the logbook in the case of doors in watertight bulkheads subdividing cargo spaces.
- *4 : Doors are to be fitted with devices which prevent unauthorized opening.
- *5 : Under *MARPOL*, hinged watertight doors may be acceptable in watertight bulkheads of the superstructure.
- *6 : Notices are to state “Kept closed at sea”.
- *7 : Notices are to state “Not to be opened at sea”.

Table C4.3.1-2 has been amended as follows.

Table C4.3.1-2 Requirements for Closing Devices for External Openings

| Position relative to bulkhead or freeboard deck | Referenced requirement in Part C of the Rules | Frequency of use | Type of closing appliance | Remote closure | Open/close indicators | Audible or visual alarms | Notices | Notes |
|---|---|------------------|---------------------------|----------------|-----------------------|--------------------------|---------|----------|
| Below | 4.3.2-2, 4.3.2-3 13.3.8-2 | Perm. Closed | S or H | No | Yes | No | Yes | *2, 3, 5 |
| At or above | 13.3.5-1, 13.3.8-1 | Norm. Closed | S or H | No | Yes | No | Yes | *1, 4 |
| | 4.3.2-2, 13.3.8-2 | Perm. Closed | S or H | No | Yes | No | Yes | *2, 3, 5 |

Notes:

- *1 : If hinged, this door is to be of ~~a quick acting or~~ single-action type.
- *2 : The time of opening such doors in port and closing them before the ship leaves port is to be entered into the logbook in the case of doors in watertight bulkheads subdividing cargo spaces.
- *3 : Doors are to be fitted with devices which prevent unauthorized opening.
- *4 : Notices are to state "Kept closed at sea".
- *5 : Notices are to state "Not to be opened at sea".

EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 July 2021.
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 date of contract for construction* is placed on or after 1 July 2021; 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 January 2022; or(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.
 - (3) the delivery of which is on or after 1 July 2024.* “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.

C32 CONTAINER CARRIERS

C32.13 Special Requirements for Container Carriers Applying Extremely Thick Steel Plates

C32.13.3 Measures for Prevention of Brittle Fracture

Sub-paragraph -1 has been amended as follows.

1 “Other measures deemed by the Society to be equivalent in effectiveness to brittle crack arrest designs” in Note (1) of **Table C32.27, Part C of the Rules** means the non-destructive ~~testing of inspections, particularly those using the Time-of-flight diffraction (TOFD) technique, specified in 1.1.2.3 of Annex M1.4.2.3(1)~~ **“GUIDANCE FOR NON DESTRUCTIVE INSPECTION ON INTERNAL IMPERFECTIONS OF THE WELDED JOINTS OF HULL CONSTRUCTIONS” M8.4.3-2, Part M of the Guidance** is carried out at the locations specified in 1.2.4 of Annex M1.4.2.3(1) **8.4.3-8, Part M of the Rules.**

EFFECTIVE DATE AND APPLICATION (Amendment 1-3)

1. The effective date of the amendments is 1 July 2021.
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.