

# **RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

**Part CS**

## **Hull Construction and Equipment of Small Ships**

**Rules for the Survey and Construction of Steel Ships**

**Part CS**

**2014 AMENDMENT NO.1**

**Guidance for the Survey and Construction of Steel Ships**

**Part CS**

**2014 AMENDMENT NO.1**

Rule No.55 / Notice No.40      30th June 2014

Resolved by Technical Committee on 4th February 2014

Approved by Board of Directors on 24th February 2014

**ClassNK**  
NIPPON KAIJI KYOKAI

---

# **RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

**RULES**

**Part CS**

**Hull Construction and Equipment of  
Small Ships**

## **2014 AMENDMENT NO.1**

Rule No.55      30th June 2014

Resolved by Technical Committee on 4th February 2014

Approved by Board of Directors on 24th February 2014

Rule No.55 30th June 2014

# 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 CS HULL CONSTRUCTION AND EQUIPMENT OF SMALL SHIPS

### Chapter 1 GENERAL

#### 1.3 Materials, Scantlings, Welding and End Connections

Table CS1.1 has been amended as follows.

Table CS1.1 Application of Mild Steels for Various Structural Members

| Structural member   | Application          | Thickness of plate : $t(mm)$ |                  |                  |                  |                  |                  |
|---|----------------------|------------------------------|------------------|------------------|------------------|------------------|------------------|
|   |                      | $t \leq 15$                  | $15 < t \leq 20$ | $20 < t \leq 25$ | $25 < t \leq 30$ | $30 < t \leq 40$ | $40 < t \leq 50$ |
| Shell plating   |                      |                              |                  |                  |                  |                  |                  |
| Sheer strake at strength deck   | (Omitted)            |                              |                  |                  |                  |                  |                  |
| Side plating  |                      |                              |                  |                  |                  |                  |                  |
| Bilge strake  |                      |                              |                  |                  |                  |                  |                  |
| Bottom plating including keel plate   |                      |                              |                  |                  |                  |                  |                  |
| Deck plating  |                      |                              |                  |                  |                  |                  |                  |
| Stringer plate in strength deck   | (Omitted)            |                              |                  |                  |                  |                  |                  |
| Strength deck strake adjoining to longitudinal bulkhead   |                      |                              |                  |                  |                  |                  |                  |
| Strength deck at cargo hatch corner   |                      |                              |                  |                  |                  |                  |                  |
| Strength deck other than mentioned above  |                      |                              |                  |                  |                  |                  |                  |
| Deck plating exposed to weather, in general   |                      |                              |                  |                  |                  |                  |                  |
| Longitudinal Bulkhead   |                      |                              |                  |                  |                  |                  |                  |
| Upper strake in longitudinal bulkhead adjoining to strength deck  | (Omitted)            |                              |                  |                  |                  |                  |                  |
| Lower strake in longitudinal bulkhead adjoining to bottom plate   |                      |                              |                  |                  |                  |                  |                  |
| Longitudinals   |                      |                              |                  |                  |                  |                  |                  |
| Upper strake in sloping plate of topside tank adjoining to strength deck  | within 0.4L amidship | A                            | B                | D                | E                |                  |                  |
| Longitudinal <u>plating</u> members above strength deck including <u>end bracket</u> and <u>face plate</u> of longitudinal <u>girders</u> | within 0.4L amidship | A                            | B                | D                | E                |                  |                  |

Table CS1.1 Application of Mild Steels for Various Structural Members (continued)

| Structural member   | Application            | Thickness of plate : $t$ (mm) |                  |                  |                  |                  |                  |
|---|------------------------|-------------------------------|------------------|------------------|------------------|------------------|------------------|
|   |                        | $t \leq 15$                   | $15 < t \leq 20$ | $20 < t \leq 25$ | $25 < t \leq 30$ | $30 < t \leq 40$ | $40 < t \leq 50$ |
| Cargo Hatch   |                        |                               |                  |                  |                  |                  |                  |
| <del>Face plate and web of</del> Cargo hatch coaming longitudinally extended on the strength deck over $0.15L$ <u>(including face plate and its flange, but excluding other stiffeners)</u> | within $0.4L$ amidship | $A$                           |                  | $B$              | $D$              |                  | $E$              |
| Hatch cover   | —                      | $A$                           |                  |                  | $B$              | $D$              |                  |
| Stern   |                        |                               |                  |                  |                  |                  |                  |
| Stern frame, rudderhorn, shaft bracket  | (Omitted)              |                               |                  |                  |                  |                  |                  |
| Rudder  |                        |                               |                  |                  |                  |                  |                  |
| Rudder Plate  | (Omitted)              |                               |                  |                  |                  |                  |                  |
| Other   |                        |                               |                  |                  |                  |                  |                  |
| Other members than those mentioned above <u>(including stiffeners)</u>  |                        | $A$                           |                  |                  |                  |                  |                  |

(Notes)

1.  $A, B, D, E$  refer to the following grades of steel:

$A : KA \quad B : KB \quad D : KD \quad E : KE$

2. Where the strength deck strake adjoined to the inner skin bulkhead of double hull ships is not a deck stringer plate, the deck strake may be treated as an ordinary strength deck strake.

Table CS1.2 has been amended as follows.

Table CS1.2 Application of High Tensile Steels for Various Structural Members

| Structural member   | Application          | Thickness of plate : $t(mm)$ |                  |                  |                  |                  |                  |
|---|----------------------|------------------------------|------------------|------------------|------------------|------------------|------------------|
|   |                      | $t \leq 15$                  | $15 < t \leq 20$ | $20 < t \leq 25$ | $25 < t \leq 30$ | $30 < t \leq 40$ | $40 < t \leq 50$ |
| Shell plating   |                      |                              |                  |                  |                  |                  |                  |
| Sheer strake at strength deck   | (Omitted)            |                              |                  |                  |                  |                  |                  |
| Side plating  |                      |                              |                  |                  |                  |                  |                  |
| Bilge strake  |                      |                              |                  |                  |                  |                  |                  |
| Bottom plating including keel plate   |                      |                              |                  |                  |                  |                  |                  |
| Deck plating  |                      |                              |                  |                  |                  |                  |                  |
| Stringer plate in strength deck   | (Omitted)            |                              |                  |                  |                  |                  |                  |
| Strength deck strake adjoining to longitudinal bulkhead   |                      |                              |                  |                  |                  |                  |                  |
| Strength deck at cargo hatch corner   |                      |                              |                  |                  |                  |                  |                  |
| Strength deck other than mentioned above  |                      |                              |                  |                  |                  |                  |                  |
| Deck plating exposed to weather, in general   |                      |                              |                  |                  |                  |                  |                  |
| Longitudinal Bulkhead   |                      |                              |                  |                  |                  |                  |                  |
| Upper strake in longitudinal bulkhead adjoining to strength deck  | (Omitted)            |                              |                  |                  |                  |                  |                  |
| Lower strake in longitudinal bulkhead adjoining to bottom plate   |                      |                              |                  |                  |                  |                  |                  |
| Longitudinals   |                      |                              |                  |                  |                  |                  |                  |
| Upper strake in sloping plate of topside tank adjoining to strength deck  | within 0.4L amidship | AH                           |                  | DH               |                  | EH               |                  |
| Longitudinal plating members above strength deck including end bracket and face plate of longitudinal girders   | within 0.4L amidship | AH                           |                  | DH               |                  | EH               |                  |
| Cargo Hatch   |                      |                              |                  |                  |                  |                  |                  |
| Face plate and web of Cargo hatch coaming longitudinally extended on the strength deck over 0.15L (including face plate and its flange, but excluding other stiffeners) | within 0.4L amidship | AH                           |                  | DH               |                  | EH               |                  |
| Hatch cover   | —                    | AH                           |                  |                  |                  | DH               |                  |

Table CS1.2 Application of High Tensile Steels for Various Structural Members (continued)

| Table 55.12 Application of High Tensile Steels for Various Structural Members (continued) |             |                              |                  |                  |                  |                  |                  |
|---|-------------|------------------------------|------------------|------------------|------------------|------------------|------------------|
| Structural member   | Application | Thickness of plate : $t(mm)$ |                  |                  |                  |                  |                  |
|   |             | $t \leq 15$                  | $15 < t \leq 20$ | $20 < t \leq 25$ | $25 < t \leq 30$ | $30 < t \leq 40$ | $40 < t \leq 50$ |
| Stern   |             |                              |                  |                  |                  |                  |                  |
| Stern frame, rudderhorn, shaft bracket  | (Omitted)   |                              |                  |                  |                  |                  |                  |
| Rudder  |             |                              |                  |                  |                  |                  |                  |
| Rudder Plate  | (Omitted)   |                              |                  |                  |                  |                  |                  |
| Other   |             |                              |                  |                  |                  |                  |                  |
| Other members than those mentioned above (including stiffeners)                           | AH          |                              |                  |                  |                  |                  |                  |

(Notes)

1. ~~A, B, D, E in Table CS1.1 and AH, DH, EH in Table CS1.2~~ refer to the following grades of steel:

~~(1) A: KA, B: KB, D: KD, E: KE~~

~~(2) AH : KA32, KA36 and KA40; DH : KD32, KD36 and KD40; EH : KE32, KE36 and KE40~~

2. Where the strength deck strake adjoined to the inner skin bulkhead of double hull ships is not a deck stringer plate, the deck strake may be treated as an ordinary strength deck strake.

## EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 July 2014.
2. Notwithstanding the amendments to the Rules, the current requirements may apply to ships for which the date of contract for construction\* is before the effective date.  
\* "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 CS**

**Hull Construction and Equipment of  
Small Ships**

**GUIDANCE**

**2014 AMENDMENT NO.1**

Notice No.40      30th June 2014

Resolved by Technical Committee on 4th February 2014

Notice No.40     30th June 2014  
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 CS        HULL CONSTRUCTION AND EQUIPMENT  
                     OF SMALL SHIPS**

**Appendix 1     APPLICATION OF PART C OF THE GUIDANCE**

In Table CS, the row of

“

|        |                |
|--------|----------------|
| 21.6.8 | <b>C23.6.8</b> |
|--------|----------------|

”

has been added under the row of

“

|        |                              |
|--------|------------------------------|
| 21.6.7 | <b>C23.6.7</b> [See Note 25] |
|--------|------------------------------|

”



## EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 July 2014.
2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships for which the date of contract for construction\* is before the effective date.  
\* “contract for construction” is defined in the latest version of IACS Procedural Requirement (PR) No.29.

### IACS PR No.29 (Rev.0, July 2009)

1. The date of “contract for construction” of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.
2. The date of “contract for construction” of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder.  
For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a “series of vessels” if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided:
  - (1) such alterations do not affect matters related to classification, or
  - (2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval.The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed.
3. If a contract for construction is later amended to include additional vessels or additional options, the date of “contract for construction” for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a “new contract” to which **1.** and **2.** above apply.
4. If a contract for construction is amended to change the ship type, the date of “contract for construction” of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

Note:

This Procedural Requirement applies from 1 July 2009.