

RULES FOR HIGH SPEED CRAFT

GUIDANCE FOR HIGH SPEED CRAFT

Rules for High Speed Craft
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2023 AMENDMENT NO.1
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Rule No.34 / Notice No.36 30 June 2023
Resolved by Technical Committee on 25 January 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 HIGH SPEED CRAFT

RULES

2023 AMENDMENT NO.1

Rule No.34 30 June 2023

Resolved by Technical Committee on 25 January 2023

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

“Rules for high speed craft” has been partly amended as follows:

Amendment 1-1

Part 1 GENERAL RULES

Chapter 1 GENERAL

1.1 General

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

1.1.7 Ship Identification Number

For cargo craft not less than 300 *gross tonnage* and passenger craft not less than 100 *gross tonnage* engaged on international voyages, the ship’s identification number is to be permanently marked as follows, in accordance with the material of the hull construction.

- (1) Steel craft or aluminum alloy craft: Those specified in ~~1.1.24~~, **14.2, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships**
- (2) Fibreglass reinforced plastics craft: Those specified in **1.3.8 of the Rules for the Survey and Construction of Ships of Fibreglass Reinforced Plastics**

Part 3 HULL STRUCTURAL MATERIALS AND THEIR WELDING OR MOULDING

Chapter 4 WELDING OF ALUMINIUM ALLOYS FOR HULL STRUCTURE

4.2 Preparation of Welding

4.2.1 Groove and Groove Processing

Sub-paragraph -3 has been amended as follows.

3 The kind and size of fillet welds for tee joints and their application are to be in accordance with the requirements given in **Table ~~C1.4~~ 12.2.1-1** and **Table ~~C1.5~~ in Chapter 4, 12.2.1-2, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships** respectively. However, the size of fillet “ f_{a1} ” is not to be less than that obtained from the following formula:

$$f_{a1} = (f - 1.5) \frac{\sigma_Y}{\sigma_d} \text{ (mm)}$$

Where:

f : Size of fillet of continuous fillet weld or intermittent fillet weld according to the thickness of the plate as specified in **Table ~~C1.4~~ in Chapter 1, 12.2.1-1, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships** (mm)

σ_Y : Proof stress as specified in **1.2.2 in Part 6** (N/mm^2)

σ_d : The lower limit of the specified proof stress of the base material with suffix “-O” in the division or the grade concerned (N/mm^2)

Where **Table ~~C1.4~~ 12.2.1-1** and **Table ~~C1.5~~ in Chapter 1, 12.2.1-2, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships** are correspondingly applied, kinds of fillet welds are to be three types of $F1$, $F2$ and $F3$, and taking $F3$ in lieu of $F4$ in **Table ~~C1.5~~ 12.2.1-2**. And, notwithstanding Note 5 of **Table ~~C1.4~~ of the Rules for the Survey and Construction of Steel Ships** **Table 12.2.1-1**, the chain intermittent fillet weld may be applied as the intermittent fillet welds. However, the ends $1w$ is to be welded on both sides wherever the chain intermittent fillet weld is applied.

4 Notwithstanding preceding -3, kinds and sizes of fillet welds for Tee joints and their application may be in accordance with the other technical standard as deemed appropriate by the Society.

5 For lap joints, the breadth of overlap is not to be less than obtained from the following formula, but need not exceed 50 mm.

$$2t + 25 \text{ (mm)}$$

Where:

t : thickness of the thinner plate (mm)

6 For joggled lap joints, the breadth of overlap is not to be less than obtained from the following formula, but need not exceed 40 mm.

$$t + 25 \text{ (mm)}$$

Where:

t : thickness of the thinner plate (mm)

7 The groove is to be finished smoothly by a mechanical method.

Part 4 REQUIREMENTS FOR GENERAL ARRANGEMENT

Chapter 2 ARRANGEMENT OF WATERTIGHT BULKHEADS

2.1 Arrangement of Watertight Bulkheads

2.1.4 Hold Bulkheads*

Sub-paragraph -2 has been amended as follows.

2 Notwithstanding preceding -1, a cargo craft which is not engaged in international voyage and for restricted service (Refer to the provision of **Chapter 3, Part 8** of this Rule) may have hold bulkheads in accordance with ~~13.1.4, 2.2.1.4, Part 1, Part C~~ or **13.1.4, Part CS of Rules for the Survey and Construction of Steel Ships**.

Part 5 DESIGN LOADS

Chapter 2 DESIGN LOADS

2.8 Longitudinal Bending Moments

2.8.1 Maximum Longitudinal Bending Moments at the Midship Part

Sub-paragraph -2 has been amended as follows.

2 In addition to **-1** above, for the craft with L_s more than 60 m , maximum longitudinal bending moment at the midship part (M) is not to be less than that obtained from following formula in consideration of longitudinal bending moment in still water and wave induced longitudinal bending moment.

$$M_S + M_W \text{ (kN-m)}$$

where:

M_S and M_W : As specified in ~~15.2.1~~, **4.3.2, Part 1, Part C** or **15.2.1, Part CS of the Rules for the Survey and Construction of Steel Ships**.

Part 6 SCANTLING DETERMINATION OF HULL CONSTRUCTION

Chapter 1 HULL CONSTRUCTION FOR STEEL OR ALUMINIUM ALLOYS CRAFT

1.3 General Requirements on Hull Construction

Paragraph 1.3.1 has been amended as follows.

1.3.1 Application for Steels

Where the steels are used for hull structures, the grades of the steels are to be in accordance with the requirements specified in ~~1.1.11 and 1.1.12~~, **3.2.2, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships.**

Part 7 EQUIPMENT AND PAINTING

Chapter 2 HATCHWAYS, MACHINERY SPACE OPENINGS AND OTHER DECK OPENINGS

2.2 Hatchways

Paragraph 2.2.1 has been amended as follows.

2.2.1 Application

The construction and the closing means of cargo and other hatchways are to be comply with the requirements in ~~Chapter 20, Part C 14.6 and 14.7, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships~~ or **Chapter 19, Part CS of the Rules for the Survey and Construction of Steel Ships**, unless otherwise specified in this chapter.

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

- 1.** The effective date of the amendments is 1 July 2023.
- 2.** Notwithstanding the amendments to the Rules, the current requirements apply to the following ships:
 - (1) ships for which the date of contract for construction is before the effective date; or
 - (2) sister ships of ships subject to the current requirements for which the date of contract for construction is before 1 January 2025.

Part 1 GENERAL RULES

Chapter 1 GENERAL

1.1 General

Paragraph 1.1.9 has been added as follows.

1.1.9 Work-Ships

Work-ships are to comply with **Part O of the Rules for the Survey and Construction of Steel Ships.**

EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

- 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 ships for which the date of contract for construction is before the effective date upon request by the owner.

GUIDANCE FOR HIGH SPEED CRAFT

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2023 AMENDMENT NO.1

Notice No.36 30 June 2023

Resolved by Technical Committee on 25 January 2023

“Guidance for high speed craft” has been partly amended as follows:

Amendment 1-1

Part 9 MACHINERY INSTALLATIONS

Chapter 2 RECIPROCATING INTERNAL COMBUSTION ENGINES

2.1 General

2.1.1 General*

Sub-paragraph -2 has been amended as follows.

2 The wording “the requirements specified otherwise by the Society” in **2.1.1-5, Part 9 of the Rules** means **Annex ~~31.1.3-2~~ “GUIDANCE FOR HIGH PRESSURE GAS FUELLED ENGINES”** or **Annex ~~41.1.3-3~~ “GUIDANCE FOR LOW PRESSURE GAS FUELLED ENGINES”** of **Part GF of the Rules for the Survey and Construction of Steel Ships.**

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 30 June 2023.
2. Notwithstanding the amendments to the Guidance, the current requirements apply to the surveys for which the application is submitted to the Society before the effective date.

Part 1 GENERAL RULES

Chapter 1 GENERAL

1.1 General

1.1.5 Craft of Unusual Form or Proportion

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

1 Craft with unusual large freeboards

- (1) “Craft with unusual large freeboards” are the craft which comply with the condition prescribed in ~~C1.1.3-2(1) of the Guidance~~ **1.4.3.5, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships.**
- (2) Craft with unusual large freeboards may be treated as follows in case that the requirements in **Part 7 and Part 9 of the Rules for High Speed Craft** (hereinafter referred to as “the Rules” in this guidance) apply.

(a) **Chapter 2 in Part 7 of the Rules:**

In determination of “Position of Exposed Decks” prescribed in **2.1.2 in Part 7 of the Rules**, the exposed deck in question may be regarded as follows in accordance with H_D and h_s . In this case, H_D is the vertical distance from an imaginary freeboard deck to the weather deck at side and h_s is the standard height of superstructure determined by the requirements in **V2.2.1 of the Guidance for the Survey and Construction of Steel Ships.**

$$h_s \leq H_D < 2h_s :$$

Superstructure deck of first tier above an imaginary freeboard deck

$$2h_s \leq H_D < 3h_s :$$

Superstructure deck of second tier above an imaginary freeboard deck

$$3h_s \leq H_D :$$

Superstructure deck of third tier above an imaginary freeboard deck

(b) **Chapter 8 in Part 9 of the Rules:**

In determining of the diameters of bilge suction pipes prescribed in **13.5.3, Part D of the Rules for the Survey and Construction of Steel Ships** quoted by **8.4 in Part 9 of the Rules**, D' may be used in place of D in determining the diameters of bilge suction pipes. In this case, D' is the vertical distance from the top of keel to an imaginary freeboard deck (refer to ~~Fig. C1.1.3-2 of the Guidance~~ **Fig. 1.4.3-4, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships**).

Chapter 2 DEFINITIONS

2.1 General

2.1.15 Freeboard Deck

Sub-paragraph -1 has been amended as follows.

1 “Adequate width” specified in **2.1.15-3, Part 1 of the Rules** is to be determined by taking into account the ship’s construction, and operation, and at the minimum, is to accommodate the passages specified in ~~23.7, Part C of the Rules~~ **14.13, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships.**

Part 6 SCANTLING DETERMINATION OF HULL CONSTRUCTION

Chapter 4 BUCKLING CONTROL

4.1 General

Paragraph 4.1.1 has been amended as follows.

4.1.1 General

Where detailed assessment of buckling strength is required, the ~~Annex C1.1.22-2~~ **“GUIDANCE FOR BUCKLING STRENGTH CALCULATION” in Part C of the Guidance for the Survey and Construction of Steel Ships** ~~8.6.2, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships~~ may be applied.

EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 July 2023.
2. Notwithstanding the amendments to the Guidance, the current requirements apply to the following ships:
 - (1) ships for which the date of contract for construction is before the effective date; or
 - (2) sister ships of ships subject to the current requirements for which the date of contract for construction is before 1 January 2025.