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RULES FOR THE CONSTRUCTION AND CLASSIFICATION OF HIGH-SPEED CRAFT 2008

AMENDMENT No.2

January 2014

CHINA CORPORATION REGISTER OF SHIPPING

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**RULES FOR THE CONSTRUCTION AND
CLASSIFICATION OF HIGH-SPEED CRAFT 2008**

AMENDMENT NO.2

The following Chapter has been amended and it's effective date is :

Chapter	Effective date
3	January 1, 2014

The RULES FOR THE CONSTRUCTION AND CLASSIFICATION OF HIGH-SPEED CRAFT 2008, Amendment No.1 thereof is to be read in conjunction with this Amendment.

List of major changes in Chapter 3 from 2008 edition

C3.2.3.1.3	Revised	Table C3.3.1	Revised
3.4	Revised	Table C3.7.2	Revised
C3.4.5 & C3.4.7	Revised	Table C3.7.4	Revised
3.6	Revised		
C3.7.3.3	Revised		

AMENDMENT NO.2 TO THE RULES FOR THE CONSTRUCTION AND CLASSIFICATION OF HIGH-SPEED CRAFT, 2008

Rules for the construction and classification of high-speed craft, 2008 has been partly amended as follows:

CHAPTER 3 STRUCTURES

Table C3.3.1 has been amended as follows:

Table C3.3.1

Area of operation	Significant wave height	F _s
Unrestricted service area	H _{1/3} > 4.0m	1.0
Restricted service area	H _{1/3} ≤ 4.0m	0.7
	H _{1/3} ≤ 2.0m	0.5
Smooth sea service area	H _{1/3} ≤ 0.5m	0.3

F_s = factor of service restriction

H_{1/3} = significant wave height

Paragraph C3.2.3.1.3 has been amended as follows:

- .3 As a rule, series 5000 aluminum-magnesium alloys or series 6000 aluminum-magnesium- silicon alloys (~~Table XI 10 3, XI 10 4, XI 10 5 and XI 10 6~~ in Part XI of the Rules for the Construction and Classification of Steel Ships) shall be used.

Paragraph 3.4 has been amended as follows:

3.4 Cyclic loads

Cyclic loads, including those from vibrations (see note 1) which can occur on the craft should not:

Paragraph C3.4.5 and C3.4.7 have been amended as follows:

C3.4.5 The pressure acting on enclosed accommodation decks is to be as follows:

$$P_d = \underline{7.0} \quad \underline{5.0} \quad \text{kN/m}^2$$

C3.4.7 The pressure acting on the front wall of superstructure and deck house is to be as follows:

$$P_h = \underline{36.0} \quad \underline{24.0} \text{ kN/m}^2 \quad \text{to plating and stiffeners}$$

$$\underline{P_h = 24.0} \quad \underline{\text{kN/m}^2} \quad \underline{\text{to stiffeners}}$$

Paragraph 3.6 has been amended as follows:

3.6 Trials

If the Administration consider it necessary it should require full-scale trials to be undertaken in which loadings are determined. Cognizance should be taken of the results where these indicate that loading assumptions of structural calculations have been inadequate. (see note 2)

Note:

1. The vibration check shall be performed during the sea trials of the craft. Where deemed necessary, the Society may require vibration measurements to be carried out using suitable instruments; where appropriate, remedial measures may be required to adequately eliminate situations deemed unacceptable.

2. The loading assumptions of structural calculation may include the requirements specified in C3.4, C3.5 and C3.6 of these Rules. Where these loading assumptions are deemed inadequate, cognizance should be taken.

Table C3.7.2 and Table C3.7.4 have been amended as follows

Table C3.7.2

Structural Members	Allowable stress, σ_a
Bottom and side shell plating – slamming pressure	0.92 0.90 σ_y
Bottom and side shell plating – sea pressure	0.30 0.55 σ_y
Deck plating – strength deck	0.30 0.60 σ_y
Deck plating – lower deck	0.40 0.60 σ_y
Bulkheads – tank boundary	0.60 σ_y
Bulkheads – watertight	0.90 0.95 σ_y
Superstructures and deck houses – front, sides, ends, tops	0.60 σ_y

Table C3.7.4

Structural Members	Allowable stress, σ_a
Bottom longitudinals	0.65 σ_y
Side longitudinals	0.30 0.50 σ_y
Deck longitudinals – strength deck	0.33 σ_y
Deck longitudinals – other deck	0.40 σ_y
Bottom transverses	0.80 σ_y
Side transverses	0.50 0.60 σ_y
Deck transverses – strength decks	0.75 σ_y
Deck transverses – other decks	0.75 σ_y
Watertight bulkheads	0.75 0.85 σ_y

Deep tank bulkheads	0.60 σ_y
Superstructure and Deckhouse	0.70 σ_y

Paragraph C3.7.3.3 has been amended as follows:

C3.7.3.3 Minimum thickness

The thickness of webs and face plates are not to be less than obtained from the following equations:

.1 Webs

$$t = \frac{d_w}{C} \sqrt{\frac{\sigma_y}{\sigma_d}} \quad \text{mm}$$

where:

t = required minimum thickness (mm)

d_w = depth of the web (mm)

C = 70 for steel members

= 50 35 for aluminum members

σ_y = yielding strength (N/mm²)

σ_d = 235 N/mm² for steel members

= 127.6 N/mm² for aluminum members.

.2 Face bars

$$t = \frac{b_f}{C} \sqrt{\frac{\sigma_y}{\sigma_d}} \quad \text{mm}$$

where:

σ_y, σ_d are as defined in C3.7.3.3.1

t = required minimum thickness (mm)

~~d_w = depth of the face bar (mm)~~

b_f = outstanding width of the face bar (mm), see Fig. C3.7.2

C = 12 for steel members

= 9 for aluminum members.



Fig. C3.7.2 Definition of b_f