

## Related to Multihull Craft

### Object of Amendment

Rules / Guidance for High Speed Craft

### Reason for Amendment

The development and introduction of offshore wind power generation is progressing globally. This has led to an increasing demand for crew transfer vessels (CTVs) and other vessels for the safe transportation of workers to offshore wind farms.

CTVs are typically designed to be capable of high-speed navigation and of a multihull type. In such cases, the Society's Rules for High Speed Craft can be applied. Although said Rules do specify requirements related to multihull craft, it mainly covers monohull craft. Therefore, relevant requirements were reviewed to assess how they could also be applied to multihull craft.

Accordingly, relevant requirements are amended to clarify requirements for multihull craft.

### Outline of the Amendment

The main details of this amendment are as follows:

- (1) Amends the scope of application of requirements for design loads so that they also apply to multihull craft.
- (2) Specifies requirements for the design loads for wet deck.
- (3) Deletes the requirement that an adequate system to immediately supply spare bower anchors is to be available when a craft loses her bower anchor from the conditions for reducing the number of anchors onboard to one.

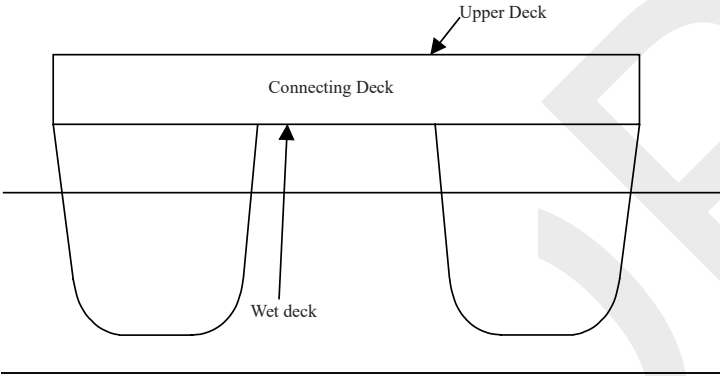
### Effective Date and application

- (1) Rules for High Speed Craft and other than Part 7 of the Guidance for High Speed Craft (Outline of the Amendment (1) and (2))  
This amendment applies to ships for which the date of contract for construction is on or after 1 July 2026.
- (2) Part 7 of the Guidance for High Speed Craft (Outline of the Amendment (3))  
Effective date of this amendment is 1 January 2026.

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

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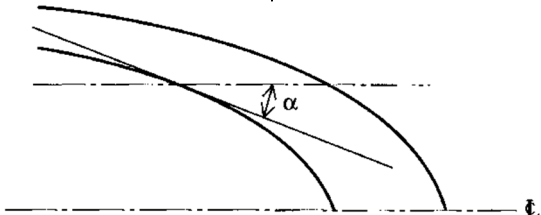
**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p align="center"><b>RULES FOR HIGH SPEED CRAFT</b></p> <p align="center"><b>Part 1 GENERAL RULES</b></p> <p align="center"><b>Chapter 2 DEFINITIONS</b></p> <p><b>2.1 General</b></p> <p><b><u>2.1.54 Wet Deck</u></b>  <u>A “wet deck” is the watertight shell plating which forms the bottom part of a connecting deck (See Fig. 1.2.1).</u></p> <p align="center"><b><u>Fig. 1.2.1 Wet Deck</u></b></p>  <p>The diagram shows a cross-section of a hull structure. At the top is a horizontal line labeled 'Upper Deck'. Below it is a horizontal line labeled 'Connecting Deck'. The area between the 'Connecting Deck' and the hull bottom is labeled 'Wet deck' with an arrow pointing to the bottom plating. The hull bottom is shown as a curved shape. A horizontal line represents the waterline, which is below the 'Wet deck' level.</p>	<p align="center"><b>RULES FOR HIGH SPEED CRAFT</b></p> <p align="center"><b>Part 1 GENERAL RULES</b></p> <p align="center"><b>Chapter 2 DEFINITIONS</b></p> <p><b>2.1 General</b></p> <p><b>(Newly Added)</b></p>	<p>- Specify the definition of “wet deck”.</p> <p>- “Wet deck” is used in Part 5 and Part 7 and is therefore specified in Part 1, GENERAL RULES.</p>

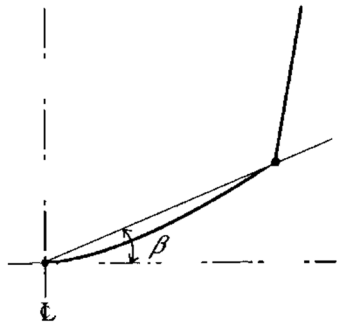
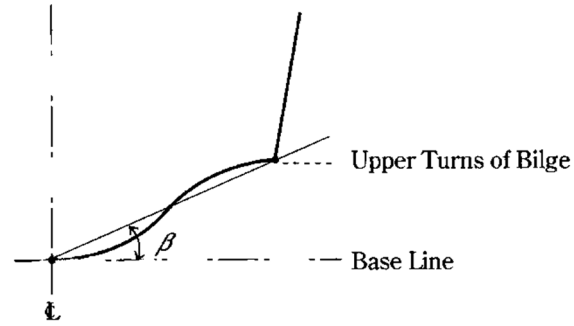
**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p><b>Part 5 DESIGN LOADS</b></p> <p><b>Chapter 1 GENERAL</b></p> <p><b>1.2 Definitions</b></p> <p><b>1.2.1 Vertical Acceleration at Forward End</b>                      The vertical acceleration at forward end <math>A_f</math> is an approximation for the average of 1/3 highest accelerations in <math>g</math> (<math>=9.81m/sec^2</math>) at the forward end. In this case, the forward end is the perpendicular at the intersection of the fore side of the stem at <u>the centreline (the centreline of each hull for multihull crafts)</u> with the designed maximum load line defined in 2.1.12-2, Part 1.</p> <p><b>1.2.4 Entrance Angle</b>                      The entrance angle <math>\alpha</math> is the angle in degrees at the point to be considered, defined as the angle between a longitudinal line parallel to the centreline <u>(the centreline of each hull for multihull crafts)</u> of a craft and the tangential line to the shell plating in an assumed horizontal plane through the midpoint of the distance between the cross point of the <u>baseline</u> and the centreline <u>(the centreline of each hull for multihull crafts)</u> and the upper edge of the bottom shell plating at the transverse section to be considered (See Fig. 5.1.1).</p>	<p><b>Part 5 DESIGN LOADS</b></p> <p><b>Chapter 1 GENERAL</b></p> <p><b>1.2 Definitions</b></p> <p><b>1.2.1 Vertical Acceleration at Forward End</b>                      The vertical acceleration at forward end is an approximation for the average of 1/3 highest accelerations in <math>g</math> (<math>=9.81m/sec^2</math>) at the forward end. In this case, the forward end is the perpendicular at the intersection of the fore side of the stem at <u>centre line</u> with the designed maximum load line defined in 2.1.12-2, Part 1 of this Rule.</p> <p><b>1.2.4 Entrance Angle</b>                      The entrance angle (<math>\alpha</math>) is the angle in degrees at the point to be considered, defined as the angle between a longitudinal line parallel to the centreline of a craft and the tangential line to the shell plating in an assumed horizontal plane through the midpoint of the distance between the cross point of the <u>base line</u> and the centreline and the upper edge of the bottom shell plating at the transverse section to be considered (See Fig. 5.1.1).</p>	<p>Clarify “centreline” refers to the centreline of each hull for multihull crafts.</p> <p>Same as above.</p>

**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p align="center">Fig. 5.1.1 Entrance Angle <math>\alpha</math></p>  <p><b>1.2.5 Deadrise Angle</b>                      The deadrise <u>angle</u> <math>\beta</math> is the angle in degrees at the point to be considered, defined as the angle between the <u>baseline</u> and the line from the cross point of the <u>baseline</u> and the <u>centreline</u> (<u>centreline of each hull for multihull crafts</u>) to the upper edge of the bottom shell plating at the transverse section to be considered. Where the deadrise <u>angle</u> is less than 10 <u>degrees</u>, the deadrise <u>angle</u> is to be taken as 10 <u>degrees</u> (See Fig. 5.1.2).</p>	<p align="center">Fig. 5.1.1 Entrance Angle (<math>\alpha</math>)</p> <p><b>1.2.5 Deadrise Angel</b>                      The deadrise <u>angel</u> (<math>\beta</math>) is the angle in degrees at the point to be considered, defined as the angle between the <u>base line</u> and the line from the cross point of the <u>base line</u> and the <u>centreline</u> to the upper edge of the bottom shell plating at the transverse section to be considered. Where the deadrise <u>angel</u> is less than 10 degrees, the deadrise <u>angel</u> is to be taken as 10 degrees (See Fig. 5.1.2).</p>	<p align="center">Same as above.</p>

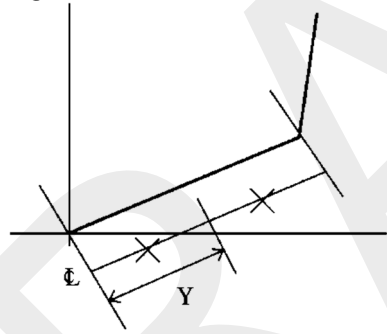
### Amended-Original Requirements Comparison Table (Related to Multihull Craft)

Amended	Original	Remarks
<p>Fig. 5.1.2 Deadrise Angle <math>\beta</math></p> 	<p>Fig. 5.1.2 Deadrise Angle (<math>\beta</math>)</p> 	
<p>Chapter 2    <b>DESIGN LOADS</b></p> <p><b>2.1 Application</b></p> <p><b>2.1.1 Application</b> The design loads detailed in 2.2 through 2.5 are to be applied to craft of which length are less than 50 m and which are operated in the displacement mode.</p>	<p>Chapter 2    <b>DESIGN LOADS</b></p> <p><b>2.1 Application</b></p> <p><b>2.1.1 Application</b> The design loads detailed in 2.2 through 2.5 are to be applied to <u>monohull</u> craft of which length are less than 50 m and which are operated in the displacement mode.</p>	
		<p>Amend the scope of application so that requirements for design loads other than those specified in Chapter 2 can be applied to</p>

**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p><b>2.1.2 Special Cases in Application</b>                      In craft of which length is more than 50 <i>m</i> or in craft of unusual form, proportion or operating mode, the design loads will be considered in each case by the Society.</p> <p><b>2.2 Design Loads for Bottom Construction</b></p> <p><b>2.2.1 Design Loads for Bottom Construction</b>                      (Omitted)</p> <p><i>F</i> : The factor to be necessary for converting a peak value of bottom impact load to the mean effective pressure and is selected from the following (a) through (c), according to the value of <math>\xi</math>. In cases where the value of <math>S_0/Y</math> exceeds 1, the value of <math>S_0/Y</math> is to be taken as 1.</p> <p>((a) and (b) are omitted.)</p> <p>(c) However, if the value obtained from (a) or (b) above exceeds 1, it <u>is to be taken</u> as 1.</p> <p><math>S_0</math>: Spacing (<i>m</i>) as follows:</p> <ul style="list-style-type: none"> <li>For plating and stiffeners: Spacing of stiffeners</li> <li>For bottom girders: Breadth of the area supported by the girder</li> <li>For bottom transverses: Spacing measured from the cross point of <u>the baseline</u> and <u>centreline (the centreline of each hull for multihull crafts) to the upper edge of the</u></li> </ul>	<p><b>2.1.2 Special Cases in Application*</b>                      In craft of which length is more than 50 <i>m</i> or in craft of unusual form, proportion or operating mode, the design loads will be considered in each case by the Society.</p> <p><b>2.2 Design Loads for Bottom Construction</b></p> <p><b>2.2.1 Design Loads for Bottom Construction</b>                      (Omitted)</p> <p><i>F</i> : The factor to be necessary for converting a peak value of bottom impact load to the mean effective pressure, and is selected from the following (a) through (c), according to the value of <math>\xi</math>. In case where the value of <math>S_0/Y</math> exceeds 1, the value of <math>S_0/Y</math> is to be taken as 1.</p> <p>((a) and (b) are omitted.)</p> <p>(c) However, if the value obtained from (a) or (b) above exceeds 1, it <u>shall be regarded</u> as 1.</p> <p><math>S_0</math>: Spacing (<i>m</i>) as follows:</p> <ul style="list-style-type: none"> <li>For plating and stiffeners: Spacing of stiffeners</li> <li>For bottom girders: Breadth of the area supported by the girder</li> <li>For bottom transverses: Spacing measured from the cross point of <u>base line</u> and <u>centreline to upper edge of the bottom shell plating to be considered.</u></li> </ul>	<p>multihull craft.</p> <p>As the scope of applicable craft has expanded, the design load requirements for transverse strength on connecting decks, as specified in the Guidance, are moved to 2.9.1.</p> <p>Clarify whether “centreline” refers to the centreline of each hull for multihull crafts or simply to the centreline of the hull.</p>

**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p>bottom shell plating to be considered.</p> <p><i>Y</i>: Half of the distance from <u>the cross point of the baseline and centreline (the centreline of each hull for multihull crafts)</u> to the chain or the bottom plating end to be considered (See Fig.5.2.1). However, for bottom transverses, the distance from the <u>cross point of the baseline and centreline (the centreline of each hull for multihull crafts)</u> to the chain or the bottom plating end to be considered.</p> <p>(Omitted)</p>	<p><i>Y</i>: Half of the distance from <u>bottom centre</u> to the chain or the bottom plating end to be considered (See Fig.5.2.1). However, for bottom transverses, the distance from the <u>bottom centre to the chin</u> or the bottom plating end to be considered.</p> <p>(Omitted)</p>	
<p align="center">Fig. 5.2.1 Measurement of <i>Y</i></p>  <p><b>2.4 Design Loads for Deck Construction</b></p> <p><b>2.4.1 Design Loads for the Exposed Deck Construction</b> (Omitted)</p> <p><b><u>2.4.2 Design Loads for Wet Deck Construction</u></b>  <u>The design load for wet decks <math>P_D</math> is not to be less than that obtained from the following formula but is to be taken as 0 when less than 0.</u></p>	<p><b>2.4 Design Loads for Deck Construction</b></p> <p><b>2.4.1 Design Loads for the Exposed Deck Construction</b> (Omitted)</p> <p><b>(Newly Added)</b></p>	<p>Specify the requirements for design loads for wet deck construction.</p>

**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
$P_D = P_B \left( 1 - \frac{H_c}{H_w} \right) \text{ (kN/m}^2\text{)}$ <p>where:</p> <p><math>P_B</math> and <math>H_w</math>: As specified in 2.2.1. However, in calculating <math>P_B</math>, the entrance angle <math>\alpha</math> and the deadrise angle <math>\beta</math> are to be read as those of the wet deck.</p> <p><math>H_c</math>: Vertical distance from the designed maximum load line to the wet deck (m).</p> <p><b>2.4.3 Design Loads for Other Deck Construction</b></p> <p>The design loads for decks intended to carry ordinary cargoes, passenger, stores, etc. are not to be less than that obtained from the following formula.</p> $P_D = C A_f P_{cargo} \text{ (kN/m}^2\text{)}$ <p>where:</p> <p><math>C</math> : Coefficient as shown in Fig. 5.2.3 corresponding to the position where cargoes are loaded.</p> <p><math>A_f</math> : As specified in 2.2.1(1).</p> <p><math>P_{cargo}</math> : The standard design loads for decks corresponding to the purpose of the deck as follows:</p> <p>For decks intended to carry ordinary cargoes: Maximum design load specified by the builders (kN/m<sup>2</sup>).</p> <p>For decks used for stores: 7.0 (kN/m<sup>2</sup>).</p> <p>For decks exclusively used for passengers, accommodation or navigation spaces: 4.6 (kN/m<sup>2</sup>).</p>	<p><b>2.4.2 Design Loads for Other Deck Construction</b></p> <p>The design loads for decks intended to carry ordinary cargoes, passenger, stores, etc. are not to be less than that obtained from the following formula.</p> $P_D = C A_f P_{cargo} \text{ (kN/m}^2\text{)}$ <p>where:</p> <p><math>C</math> : Coefficient as shown in Fig. 5.2.3 corresponding to the position where cargoes are loaded.</p> <p><math>A_f</math> : As specified in 2.2.1(1) in this Chapter.</p> <p><math>P_{cargo}</math> : The standard design loads for decks corresponding to the purpose of the deck as follow:</p> <p>For decks intended to carry ordinary cargoes: Maximum design load specified by the builders (kN/m<sup>2</sup>).</p> <p>For decks used for stores: 7.0 (kN/m<sup>2</sup>).</p> <p>For decks exclusively used for passengers, accommodation or navigation spaces: 4.6 (kN/m<sup>2</sup>).</p>	<p>With the establishment of ‘2.4.2 Design Loads for Wet Deck Construction,’ the paragraph number in the title is amended.</p>



**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p><b>2.6 Design Loads for Watertight Bulkheads and Deep Tanks</b></p> <p><b>2.6.2 Design Loads for Deep Tanks</b>                      The design loads for deep tanks <math>P_{DT}</math> are to be those obtained from the following formulae.</p> <p>(1) Sea Going Condition  <math>P_{DT} = 10\rho CA_f h_D</math> (<math>kN/m^2</math>)                      where:  <math>\rho</math>: The specific gravity of liquid which is intended to carry. However, where the value is less than 1, the specific gravity is to be taken 1.  <math>C</math> and <math>A_f</math>: As specified in 2.4.3.  <math>h_D</math>: Vertical distance measured from the lower edge of the plates to the mid-point of the height between the top of tanks and the top of overflow pipes (<math>m</math>).</p> <p>(2) Tank Test Condition  <math>P_{DT} = 10h_T</math> (<math>kN/m^2</math>)                      where:  <math>h_T</math>: Test head specified in Annex 2.1.5, Part B of the Rules for the Survey and Construction of Steel Ships (<math>m</math>).</p> <p><b><u>2.9 Design Loads for the Transverse Strength of Connecting Decks</u></b></p> <p><b><u>2.9.1 Design Loads for the Transverse Strength of Connecting Decks*</u></b>  <u>Design loads for the transverse strength of connecting</u></p>	<p><b>2.6 Design Loads for Watertight Bulkheads and Deep Tanks</b></p> <p><b>2.6.2 Design Loads for Deep Tanks</b>                      The design loads for deep tanks (<math>P_{DT}</math>) are to be those obtained from the following formulae.</p> <p>(1) Sea Going Condition  <math>P_{DT} = 10\rho CA_f h_D</math> (<math>kN/m^2</math>)                      where:  <math>\rho</math>: The specific gravity of liquid which is intended to carry. However, where the value is less than 1, the specific gravity is to be taken 1.  <math>C</math> and <math>A_f</math>: As specified in 2.4.2 in this Chapter.  <math>h_D</math>: Vertical distance measured from the lower edge of the plates to the mid-point of the height between the top of tanks and the top of overflow pipes (<math>m</math>).</p> <p>(2) Tank Test Condition  <math>P_{DT} = 10 \cdot h_T</math> (<math>kN/m^2</math>)                      where:  <math>h_T</math>: Test head specified in Annex 2.1.5, Part B of the Rules for the Survey and Construction of Steel Ships (<math>m</math>).</p> <p align="center"><b>(Newly Added)</b></p>	<p>With the establishment of ‘2.4.2 Design Loads for Wet Deck Construction,’ the reference numbers of C and Af are amended.</p> <p>- The requirements for design loads for the transverse strength on connecting decks, as specified in 2.1.2, are moved and referred from this requirement.                      - The “cross deck</p>

**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p><u>decks are to be as deemed appropriate by the Society.</u></p> <p align="center"><b>Part 7 EQUIPMENT AND PAINTING</b></p> <p align="center"><b>Chapter 1 EQUIPMENT</b></p> <p><b>1.1 Anchors, Chain Cables and Ropes</b></p> <p><b>1.1.2 Equipment Numbers</b>  <b>1</b> Equipment number is the value obtained from the following formula:  <math>W^{2/3} + 2.0C + 0.1A</math>                      where:  <math>W</math>: Full load displacement as defined in 2.1.14, Part 1 of this Rule.  <math>C</math> and <math>A</math>: Values as specified in the following (1), (2) and (3).                      (1) <math>C</math> is the value obtained from the following formula:  <math>fB + \sum hb</math>                      where:  <math>f</math>: Vertical distance, at the midship, from the designed maximum load line to the top of uppermost continuous deck beam at side (<math>m</math>).  <math>\sum hb</math>: Summing up of the products of the height <math>h</math> (<math>m</math>) and breadth <math>b</math> (<math>m</math>) of a superstructure, deckhouse or trunk which <u>is</u> located above the uppermost continuous deck and also <u>has</u> a breadth greater than <math>B/4</math>. In this calculation, sheer and trim may be ignored.</p>	<p align="center"><b>Part 7 EQUIPMENT AND PAINTING</b></p> <p align="center"><b>Chapter 1 EQUIPMENT</b></p> <p><b>1.1 Anchors, Chain Cables and Ropes</b></p> <p><b>1.1.2 Equipment Numbers</b>  <b>1</b> Equipment number is the value obtained from the following formula:  <math>W^{2/3} + 2.0C + 0.1A</math>                      where:  <math>W</math>: Full load displacement as defined in 2.1.14, Part 1 of this Rule.  <math>C</math> and <math>A</math>: Values as specified in the following (1), (2) and (3).                      (1) <math>C</math> is the value obtained from the following formula:  <math>fB + \sum hb</math>                      where:  <math>f</math>: Vertical distance, at the midship, from the designed maximum load line to the top of uppermost continuous deck beam at side (<math>m</math>).  <math>\sum hb</math>: Summing up of the products of the height <math>h</math> (<math>m</math>) and breadth <math>b</math> (<math>m</math>) of superstructure, deckhouse or trunk which <u>are</u> located above the uppermost continuous deck and also <u>have</u> a breadth greater than <math>B/4</math>. In this calculation, sheer and trim may be ignored.</p>	<p>structures” is renamed “connecting decks”.</p> <p>Amend the requirements so that they apply to crafts with more than two hulls.</p>

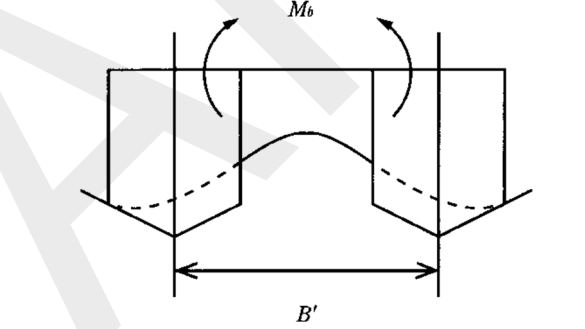
**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p>(2) <math>A</math> is the value obtained from the following formula:  <math>fL + \sum hl</math>  <u>where:</u>  <math>f</math>: As specified in (1).  <math>\sum hl</math>: Summing up of the products of the height <math>h</math> (<math>m</math>) and length <math>l</math> (<math>m</math>) of superstructures, deckhouses or trunks which are located above the uppermost continuous deck within the length of craft and also have a breadth greater than <math>B/4</math>.</p> <p>(3) In the application of (1) and (2), screens and bulwarks more than 1.5 <u>m</u> in height are to be regarded as parts of superstructures or deckhouses.</p> <p><b>2</b> In <u>multihull craft</u>, the projected area of air gap between the designed maximum load line and the wet deck may be subtracted from the value <math>C</math> specified in -1(1).</p>	<p>(2) <math>A</math> is the value obtained from the following formula:  <math>fL + \sum hl</math>  <u>Where:</u>  <math>f</math>: As specified in (1).  <math>\sum hl</math>: Summing up of the products of the height <math>h</math> (<math>m</math>) and length <math>l</math> (<math>m</math>) of superstructures, deckhouses or trunks which are located above the uppermost continuous deck within the length of craft and also have a breadth greater than <math>B/4</math>.</p> <p>(3) In the application of (1) and (2), screens and bulwarks more than 1.5 <u>metres</u> in height are to be regarded as parts of superstructures or deckhouses.</p> <p><b>2</b> In <u>catamarans</u>, the projected area of air gap between the designed maximum load line and the wet deck may be subtracted from the value <math>C</math> specified in -1(1).</p>	

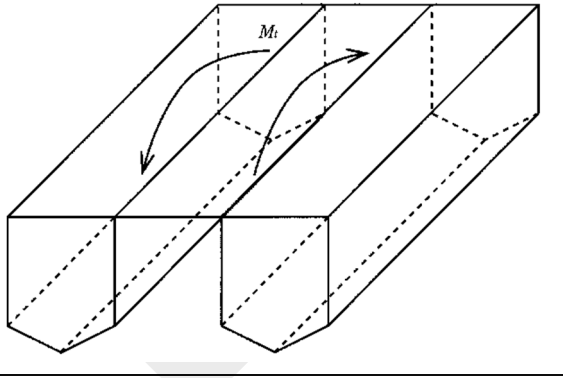
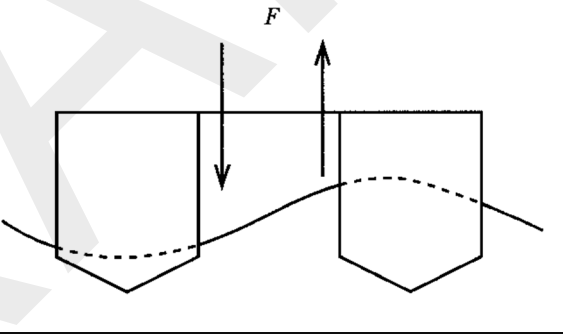
Amended-Original Requirements Comparison Table (Related to Multihull Craft)

Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR HIGH SPEED CRAFT</b></p> <p style="text-align: center;"><b>Part 5 DESIGN LOADS</b></p> <p style="text-align: center;"><b>Chapter 2 DESIGN LOADS</b></p> <p><b>(Deleted)</b></p>	<p style="text-align: center;"><b>GUIDANCE FOR HIGH SPEED CRAFT</b></p> <p style="text-align: center;"><b>Part 5 DESIGN LOADS</b></p> <p style="text-align: center;"><b>Chapter 2 DESIGN LOADS</b></p> <p><b><u>2.1 Application</u></b></p> <p><b><u>2.1.2 Special Cases in Application</u></b></p> <p><u>Design loads for the transverse strength on cross deck structures of craft with twin hulls are given by following (1) to (3).</u></p> <p>(1) <u>The twin hull transverse bending moment (See Fig. 5.2.1.2-1)</u>  <u>The twin hull transverse bending moment is obtained from the following formula:</u>  <math display="block">M_b = 2.5WB'A_f \text{ (kN-m)}</math> <u>where:</u>  <u>W: Full load displacement as defined in 2.1.14, Part 1 of the Rules.</u>  <u>B': Transverse distance between the centre of the two hulls (m).</u>  <u>A<sub>f</sub>: Design vertical acceleration at forward perpendicular of the craft as defined in 2.2.1(1), Part 5 of the Rules.</u></p> <p>(2) <u>The twin hull torsional moment (See Fig. 5.2.1.2-2)</u>  <u>The twin hull torsional moment is obtained from the following formula:</u>  <math display="block">M_t = 1.25WL_sA_f \text{ (kN-m)}</math></p>	<p>2.1 is moved to 2.9.</p>

### Amended-Original Requirements Comparison Table (Related to Multihull Craft)

Amended	Original	Remarks
	<p>where:  <u><math>L_s</math>: Scantling length as defined in 1.2.2, Part 5 of the Rules.</u>  <u><math>W</math> and <math>A_f</math>:As specified in (1).</u></p> <p>(3) <u>The twin hull vertical shear force (See Fig. 5.2.1.2-3)</u>  <u>The twin hull vertical shear force is obtained from the following formula:</u>  <u><math>F = 2.5WA_f</math> (kN-m)</u>  <u>where:</u>  <u><math>W</math> and <math>A_f</math>:As specified in (1).</u></p> <p><u>Fig. 5.2.1.2-1 Twin Hull Transverse Bending Moment</u></p> 	

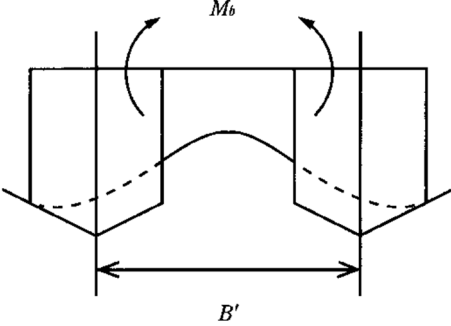
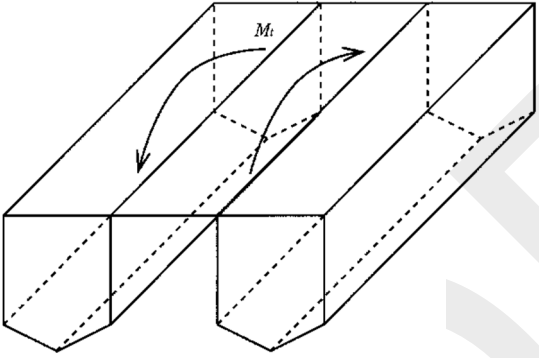
Amended-Original Requirements Comparison Table (Related to Multihull Craft)

Amended	Original	Remarks
<p><b><u>2.9 Design Loads for the Transverse Strength of Connecting Decks</u></b></p> <p><b><u>2.9.1 Design Loads for the Transverse Strength of Connecting Decks</u></b></p> <p><u>Design loads for the transverse strength of connecting decks of craft with twin hulls are given in the following (1) to (3).</u></p>	<p><b>Fig. 5.2.1.2-2 Twin Hull Torsional Moment</b></p>  <p><b>Fig. 5.2.1.2-3 Twin Hull Vertical Shear Force</b></p>  <p>(Newly Added)</p>	<p>- 2.1 is moved to 2.9.</p> <p>- Amend the figure numbers.</p> <p>- Unify the symbol for shear force to F.</p> <p>- The “cross deck structures” is renamed “connecting decks”.</p>

**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

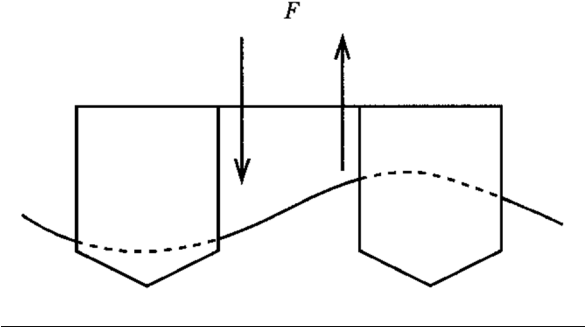
Amended	Original	Remarks
<p>(1) <u>The twin hull transverse bending moment (See Fig. 5.2.9.1-1)</u>  <u>The twin hull transverse bending moment is obtained from the following formula:</u>  <math display="block">M_b = 2.5WB'A_f \text{ (kN-m)}</math>                     where:  <u>W</u>: Full load displacement as defined in 2.1.14, Part 1 of the Rules.  <u>B'</u>: Transverse distance between the centre of the two hulls (m).  <u>A<sub>f</sub></u>: Design vertical acceleration at the forward perpendicular of the craft as defined in 2.2.1(1), Part 5 of the Rules.</p> <p>(2) <u>The twin hull torsional moment (See Fig. 5.2.9.1-2)</u>  <u>The twin hull torsional moment is obtained from the following formula:</u>  <math display="block">M_t = 1.25WL_sA_f \text{ (kN-m)}</math>                     where:  <u>L<sub>s</sub></u>: Scantling length as defined in 1.2.2, Part 5 of the Rules.  <u>W</u> and <u>A<sub>f</sub></u>: As specified in (1).</p> <p>(3) <u>The twin hull vertical shear force (See Fig. 5.2.9.1-3)</u>  <u>The twin hull vertical shear force is obtained from the following formula:</u>  <math display="block">F = 2.5WA_f \text{ (kN)}</math>                     where:  <u>W</u> and <u>A<sub>f</sub></u>: As specified in (1).</p>		

Amended-Original Requirements Comparison Table (Related to Multihull Craft)

Amended	Original	Remarks
<p data-bbox="212 204 913 236"><u>Fig. 5.2.9.1-1 Twin Hull Transverse Bending Moment</u></p>  <hr data-bbox="271 657 853 662"/> <p data-bbox="280 742 846 774"><u>Fig. 5.2.9.1-2 Twin Hull Torsional Moment</u></p>  <hr data-bbox="271 1173 853 1177"/>		



Amended-Original Requirements Comparison Table (Related to Multihull Craft)

Amended	Original	Remarks
<p data-bbox="264 204 857 231"><u>Fig. 5.2.9.1-3 Twin Hull Vertical Shear Force</u></p>  <p data-bbox="197 651 929 726"><b>Part 6 SCANTLING DETERMINATION OF HULL CONSTRUCTION</b></p> <p data-bbox="212 815 913 890"><b>Chapter 1 HULL CONSTRUCTION FOR STEEL OR ALUMINIUM ALLOYS CRAFT</b></p> <p data-bbox="201 959 383 986"><b>1.1 General</b></p> <p data-bbox="201 1062 477 1090"><b>1.1.1 Application</b></p> <p data-bbox="170 1099 965 1201">1 Allowable stress for the transverse strength of <u>connecting decks</u> of craft with twin hulls <u>is</u> shown in <u>Table 6.1.1.1-1</u>.</p> <p data-bbox="170 1211 965 1313">2 Buckling strength of <u>connecting decks</u> of craft with twin hulls <u>is</u> to be in accordance with the requirements specified in <u>Chapter 4, Part 6 of the Rules</u>.</p>	<p data-bbox="1019 651 1751 726"><b>Part 6 SCANTLING DETERMINATION OF HULL CONSTRUCTION</b></p> <p data-bbox="1034 815 1736 890"><b>Chapter 1 HULL CONSTRUCTION FOR STEEL OR ALUMINIUM ALLOYS CRAFT</b></p> <p data-bbox="1023 959 1205 986"><b>1.1 General</b></p> <p data-bbox="1023 1062 1299 1090"><b>1.1.1 Application</b></p> <p data-bbox="992 1099 1787 1201">1 Allowable stress for the transverse strength <u>on cross deck structure</u> of craft with twin hull <u>are</u> shown in <u>Table 6.1.1.1-1</u>.</p> <p data-bbox="992 1211 1787 1313">2 Buckling strength <u>on cross deck</u> of craft with twin hull <u>are</u> to be in accordance with the requirements specified in <u>Chapter 4, Part 6 of the Rules</u>.</p>	<p data-bbox="1809 1031 2107 1125">- The “cross deck structures” is renamed “connecting decks”.</p>

**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p><b>Chapter 3      DIRECT CALCULATIONS</b></p> <p><b>3.4 Design Loads</b></p> <p><b>3.4.3 External Loads</b>                      The following loads are to be taken into consideration as external loads.                      ((1) to (4) are omitted.)  <u>(5) The external loads for the wet decks</u>  <u>The external loads for the wet decks are to be in accordance with 2.4.2, Part 5 of the Rules.</u></p>	<p><b>Chapter 3      DIRECT CALCULATIONS</b></p> <p><b>3.4 Design Loads</b></p> <p><b>3.4.3 External Loads</b>                      The following loads are to be taken into consideration as external loads.                      ((1) to (4) are omitted.)                      (Newly Added)</p>	<p>- Amend the requirements so that the design loads for wet decks are also to be taken into consideration in direct strength calculations.</p>
<p align="center">The effective date of the amendment is according to EFFECTIVE DATE AND APPLICATION (A)</p>		

**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR HIGH SPEED CRAFT</b></p> <p align="center"><b>Part 7 EQUIPMENT AND PAINTING</b></p> <p align="center"><b>Chapter 1 EQUIPMENT</b></p> <p><b>1.1 Anchors, Chain Cables and Ropes</b></p> <p><b>1.1.1 General</b></p> <p><b>1</b> The wording “at the discretion of the Society” is the case where <u>the</u> following conditions are fully satisfied:</p> <p>(1) A craft is engaged in the specific voyage,</p> <p>(2) In general, there is no case of anchorage by using bower anchors under the normal operation,</p> <p>(3) Adequate system of refuge is available in cases of bad weather</p> <p>(Deleted)</p>	<p align="center"><b>GUIDANCE FOR HIGH SPEED CRAFT</b></p> <p align="center"><b>Part 7 EQUIPMENT AND PAINTING</b></p> <p align="center"><b>Chapter 1 EQUIPMENT</b></p> <p><b>1.1 Anchors, Chain Cables and Ropes</b></p> <p><b>1.1.1 General</b></p> <p><b>1</b> The wording “at the discretion of the Society” is the case where following conditions are fully satisfied:</p> <p>(1) A craft is engaged in the specific voyage,</p> <p>(2) In general, there is no case of anchorage by using bower anchors under the normal operation,</p> <p>(3) Adequate system of refuge is available in cases of bad weather, <u>and</u></p> <p>(4) <u>Adequate system to immediately supply spare bower anchor is available when a craft loses her bower anchor.</u></p>	<p>- After considering industry requests and relevant Regulations, requirements for system to supply spare bower anchor are deleted.</p>
<p align="center">The effective date of the amendment is according to EFFECTIVE DATE AND APPLICATION (B)</p>		

**Amended-Original Requirements Comparison Table (Related to Multihull Craft)**

Amended	Original	Remarks
<p><b>AEFFECTIVE DATE AND APPLICATION (A)</b></p>		
<ol style="list-style-type: none"> <li>1. The effective date of the amendments is 1 July 2026.</li> <li>2. Notwithstanding the amendments, the current requirements apply to ships other than ships for which the application for Classification Survey during Construction is submitted to the Society on and after the effective date.</li> </ol>		<p>- The effective date of the amendments “AEFFECTIVE DATE AND APPLICATION (A) is after the date 6 months from the date of establishment.</p>
<p><b>AEFFECTIVE DATE AND APPLICATION (B)</b></p>		
<ol style="list-style-type: none"> <li>1. The effective date of the amendments is 1 January 2026.</li> </ol>		<p>- The effective date of the amendments “AEFFECTIVE DATE AND APPLICATION (B) is the date of establishment.</p>

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