

Tanker Q&As and CIs on the IACS CSR Knowledge Centre

| KCID No. | Ref.       | Type     | Topic                          | Date completed | Question/CI  | Answer  | Attachment |
|----------|------------|----------|--------------------------------|----------------|--|---|------------|
| 1128     | 2/3.1.8.4  | Question | Cargo loaded below zero        | 2013/5/3       | <p>If cargo can be loaded below zero as we understand that this is not uncommon. Also ask if IACS should include a comment in the Loading Manual 'Guidance to Master', indicating the boundaries/constraints for cargo carriage temperature if not already done.</p> <p>Some cold cargo below zero temperature case can be loaded is more serious considered cargo hold structures because this cargo hold temperature will be continuously below zero. If this ship's trading route will be north atlantic or Russia in winter season case then CSR rule is not covered and necessary some Guidance for Master in LM for safety operation or crew. In this case, we are not sure unaware of any problem as follows;-</p> <ul style="list-style-type: none"> <li>-Cargo is continuous below zero</li> <li>-North Atlantic or Russia trading in winter season</li> <li>-Exposed air condition is also low temperature during ice voyage</li> <li>-Water in ballast tank will be frozen</li> </ul> | <p>CSR-OT 2/3.1.8.4 clearly mentions that CSR is applicable for vessels with cargo/ballast water temp above 0 C degrees. Furthermore cargo holds are equipped with heating coil systems that can warm up the cargo if necessary in order to maintain the viscosity for carrying and unloading. Vessels carrying cargo with temperatures less than zero degrees C are to be considered on a case by case basis by the individual Class Society.</p> <p>IACS is aware of this topic and will further consider a unified proposal for the carriage of low temperature cargoes in the future.</p> |            |
| 1129     | 6/5.4.1.1  | Question | Clarification for lapped joint | 2013/3/27      | <p>According to KC984, this requirement shall be also applied to "overlap type" pipe penetration. However it is still not clear how to apply it to the actual ship so please consider following questions and also draft proposal:</p> <ol style="list-style-type: none"> <li>1. What level of stress can be taken as "high stress"? Certain level of stress i.e 50% of yield or specific locations can be proposed instead of "high stress".</li> <li>2. What size of opening shall meet this requirement? Specific size of opening can be proposed i.e "This requirement is applicable only for opening size b&gt;300mm.</li> </ol>  | <p>Application of 6/5.4 for pipe penetration is subject to the approval of individual society.</p>  |            |
| 1130     | 11/3.1.3.9 | Question | Mooring winch / windlass       | 2013/5/3       | <p>The rules here says ref. 3.1.3.9 and 3.1.3.10. IACS rules for sea forces also are applied for mooring winches forward 0,25L. Does this also include mooring winch on combined windlass/mooring winch?</p>   | <p>It is confirmed that CSR-OT 3/1.3.9 and 3/1.3.10 also apply to the mooring winch on a combined windlass/mooring winch.</p>   |            |

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| 1131     | 8/2.5.7.2 | Question | Corrugated bulkhead | 2013/7/9       | <p>We found an editorial error for corrugated bulkhead in CSR-OT rules. CSR-H draft rules is same as this.</p> <p>1) The Rules are as below at present: CSR-OT Sec8/2.5.7.2<br/>                     2.5.7 Vertically corrugated bulkheads<br/>                     2.5.7.2 The net plate thicknesses as required by 2.5.7.5 and 2.5.7.6 are to be maintained for two thirds of the corrugation length, lcg, from the lower end, where lcg is as defined in 2.5.7.3. Above that, the net plate thickness may be reduced by 20%.<br/>                     CSR-H Pt2, Ch2, Sec3<br/>                     2.2.1 Net plate thickness over the height<br/>                     The net plate thicknesses as required by [2.2.3] and [2.2.4] are to be maintained for two thirds of the corrugation length, lcg from the lower end. Above that, the net plate thickness may be reduced by 20%.</p> <p>2) Our proposal: CSR-OT Sec8/2.5.7.2<br/>                     2.5.7 Vertically corrugated bulkheads<br/>                     2.5.7.2 The net plate thicknesses as required by 2.5.7.5 and 2.5.7.6 are to be maintained for two thirds of the corrugation length, lcg, from the lower end, where lcg is as defined in 2.5.7.3. Above that, the net plate thickness may be reduced by 20% from the net thickness required by 2.5.7.3 for the lower part and 2.5.7.5 for the mid part of the corrugation.<br/>                     CSR-H Pt2, Ch2, Sec3<br/>                     2.2.1 Net plate thickness over the height<br/>                     The net plate thicknesses as required by [2.2.3] and [2.2.4] are to be maintained for two thirds of the corrugation length, lcg from the lower end. Above that, the net plate thickness may be reduced by 20% from the net thickness required by [2.2.2] for the lower part and [2.2.3] for the mid part of the corrugation.</p> <p>(Continues to the next page)</p> | <p>This question is related to KC ID 128, which confirms that the upper part of the corrugation, with the thickness reduced by 20%, is also required to comply with Sec.8/2.5.7.6. At this time, the CSR-OT rules will not be modified.</p> <p>However, to provide clarity in the rule text, your proposal is being considered by the CSR Harmonization development teams.</p> |            |

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| 1131     | 8/2.5.7.2 | Question | Corrugated bulkhead | 2013/7/9       | <p>(Continues from the former page)</p> <p>3) Reason</p> <p>3.1) The rules can be read as that the required net plate thickness in the upper part of the corrugation is to be calculated by 20% reduction from the maximum requirement of net thickness at the mid and lower parts of 2.5.7.5 (this is for the flange plate requirement for mid and lower parts) and 2.5.7.6 (this is for the section modulus requirement of upper, mid and lower parts).</p> <p>3.2) It is strange that the minimum net thickness is required based on the requirement of section modulus for the mid part. This will give too much extra thickness for the upper part. If they need to give rational and theoretical requirement for robust scantlings at the upper part of the corrugation, the aim can be achieved by 2.5.7.6 for the upper part, which is calculated based on different effective flange area and bending moment coefficient considered for each part appropriately.</p> <p>3.3) It is understood that the rules is based on ABS rules Pt5 Ch1 Sec4/17.3 as attached. ABS rules say the requirement of upper part is to be calculated by reduction of 20% from the requirement of plate thickness of the flange and web for mid-length and lower end of the corrugation only. This does not refer to the section modulus requirement.</p> <p>3.4) At that time of draft version of the CSR-OT rules, this requirement did not refer to the section modulus requirement, as below.<br/>                     "2.5.7.2 The net plate thicknesses as required by 2.5.7.5 are to be maintained for two thirds of the corrugation length, lcg, from the lower end, where lcg is as defined in 2.5.7.3. Above that, the net plate thickness may be reduced by 20%."<br/>                     However, when the CSR-OT issued in 2006, editorial modification as adding '2.5.7.6' was made for the purpose of ensuring of the scantling within 2/3 of the corrugation from lower end. However, the following sentence did not considered together with this editorial modification.</p> <p>3.5) In the technical background for this part of the CSR-OT rules, they refer also IACS UR S18.4.1. It is understood that S18.4.1 says the section modulus of upper part of the corrugated bulkhead is not be less than 75% of that required for middle part.<br/>                     But, this IACS UR S18 requirement should be included in it, because there is no requirement of the section modulus for the upper part in S18. On the other hand, in the CSR-OT rules, a requirement of section modulus for the upper part considering bending coefficient etc at the upper part has been included.</p> <p>4) Therefore, from the above reasons, we would propose the editorial modification shown in paragraph 2) above, in order to correct application of the rules.</p> | (See the former page) |            |

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| 1133     | 8/5.2.2.1 | Interpretation | Stiffeners arrangement in aft peak ballast | 2013/5/21      | Application area of CSR OT Sec 8/5.2.2.1 & 5.2.2.2 is unclear even with KC 597. Please confirm if CSR-H application can be used for CSR OT? CSR-H, Ch10, Sec3, 2.2.2: Stiffeners on the floors and girders in aft peak ballast or fresh water tanks above propeller shall be arranged with brackets. This apply for stiffeners located in an area extending longitudinally between the forward edge of the rudder and the after end of the propeller boss and transversely within the diameter of the propeller. | It is acknowledged that the application area of the Rule requirements is defined more clearly in CSR-H. We can confirm that the proposed application area should be used. |            |