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

KCID No.	Ref.	Type	Topic	Date completed	Question/CI	Answer	Attachment
4	6/2.1.1.7	Question	anodes	2006/3/5	Where anodes are fitted in ballast tank … are to be submitted for approval" Anode installation shall be in accordance with the manufacturer's recommendation and shall be submitted to the Buyer for approval. It is the Builder's normal practice. Is it necessary additional approval process by class society ? If necessary, please advise the approval procedure or guideline for anode installation in ballast tank.	The requirement is to submit a drawing showing the distribution of anodes throughout the ballast tanks and connection details for the anodes in order that compliance with the requirements in 6/2.1.2.4-7 can be assessed. The approval by class relates to the attachment of the anodes to the hull structure and not to the capacity/location in terms of protection efficiency which is a matter between builder and owner.	
50	6/4.3.2.1	Question	high heat input welding	2006/5/5	This paragraph should be modified as below for clarification. It is not suitable to describe high heat input welding at 4.3 (Hot forming). It should be described at 4.4 (Welding) and a quantitative value for high heat input should be given. "Confirmation is required to demonstrate the mechanical properties after further heating meet the requirements specified, by a procedure test using representative material, when considering further heating other than 4.3.1.1 of thermo-mechanically controlled steels (TMCP plates) for forming and stress relieving.	We agree with your comment and have revised the text of paragraph 4.3.1.2 in Corrigenda 1 published in April 2006 to state - "Confirmation is required to demonstrate the mechanical properties after further heating meet the requirements specified by a procedure test using representative material, when considering further heating other than in 4.3.1.1 of thermo-mechanically controlled steels (TMCP plates) for forming and stress relieving	
51	6/4.4.1.1	Question	approved welding procedures	2006/5/5	The second sentence of the following should be deleted considering that the subject sequences are not the classification society's issue."All welding is to be carried out by approved welders, in accordance with approved welding procedures, using approved welding consumables and is to comply with the Rules for Materials of the individual Classification Society. The assembly sequence and welding sequence are to be agreed prior to construction and are to be to the satisfaction of the Surveyor, see Sub-Section 5."	Class has no involvement in the assembly sequence, and necessary details with regard to welding sequence are covered by the approved welding procedure. We agree with the comment and have removed the second sentence in Corrigenda 1 published in April 2006.	
80	6/ Table 6.3.1	Question	Corrosion Addition	2006/9/5	Corrosion Addition for Typical Structural Elements Within the Cargo Tank Region 1) Please provide with a table for structural elements outside the cargo tank region. 2) Corrosion additions for weather deck and side plating of void space are to be provided.	1)Table 6.3.1 contains "combined" example results for listed structural items within the cargo tank region based on Table 12.1.2. For additional locations not included in Table 6.3.1, please obtain corrosion additions using Table 12.1.2 directly. 2) The corrosion addition may be derived directly from Table 12.1.2.	

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117	6/5.7	Question	Weld sizes	2006/8/16	When a fillet weld is sized under the CSR for tankers, then the reference thicknesses used are the gross thicknesses of the items to be joined. The weld throat thickness will therefore be increased by the same percentage as the increase in thickness for the element(s) being joined. Generally, the combined throat thicknesses of the fillet welds will be less than the thickness of the items being joined and so with the same percentage increase, the absolute corrosion allowance for the weld will be less than that for the item being joined. Please could you comment on whether or not this is an accurate outline of the situation.	It is confirmed that the weld sizes in the IACS CSR for Tankers are based on the gross required thicknesses of the items being joined. The associated weld throat thickness will be increased and/or decreased accordingly if the required gross thicknesses change. However, it should be noted that minimum weld sizes are also applied and therefore if a required gross thickness of a design is reduced (e.g. by reducing stiffener spacing) the weld may not always be reduced if the weld size is controlled by a minimum requirement. With regard to corrosion allowances in the welds, the welds themselves are not normally measured during in-service inspections and therefore discrete corrosion allowances are not provided for the welds. The required weld sizes in the CSR for Tankers have been developed based on the existing rule welding requirements of the class societies associated with gross scantlings and also include increases to the corrosive areas near the top of the tanks where experience has shown that the adjacent plating required increased margins due to corrosion. The assessment of welds is made during close-up survey which includes review of localized pitting, grooving and edge corrosion that may affect the welds. In addition typically if a localized plate renewal must be made due to local corrosion it will include any suspect welds.In summary, the welding typically does not include a discrete corrosion allowance, rather they are assessed in service during close-up survey inspections.	
120	Sec 6	CI	Use of stainless steel for internal bulkheads	2006/9/11	Designer wants to use stainless steel for internal bulkheads of a checmical tanker. Section 6 doesn't give any advice re stainless steel. Steel factor k ? Corrosion addition ? Material Code: 1.4462 according to German Standards.	Currently coverage of stainless steel is outside scope, and therefore individual societies approach is invoked. When the yield stress for stainless steel is taken based on design temperature lower than 80 degrees, then this information should be included in the loading guidance information.	
121	6/3.1.1.2 & 6/3.2.1.1	CI	Cargo tank corrosion additions	2006/9/1	Are the corrosion additions defined in 6/3.2.1.1 applicable to the cargo tanks of an Oil-Chemical tanker with its cargo tanks coated according to IBC code?	The corrosion additions defined in 6/3.2.1.1 are applicable to the cargo tanks of Oil-Chemical tankers without consideration of the coating system provided onboard, even for coating complying with IBC Code.	
123	Table 6.5.3	Question	Weld preparation	2006/8/31	At the weld connection between Upper Deck and the Sheer Strake, when the stringer gross plate thickness exceeds 15mm, vee preparation with an angle of 50 is demanded. As per the current shipyard practice, this angle is 40 or 45. Is it required to change that practice?	As given in the Note 3 of Table 6.5.3, if weld procedure approval is obtained, the reduction of the angle to 40 or 45 is possible.	
124	6/5.8.1.1	Question	Welding for structuress subject to high tensile stresses	2006/9/27	What is the standard value of the high tensile stress mentioned here? What is the limit of the stress for which this rule can be applied?	Since the formula in this section is a function of actual working stress, it may not be appropriate to specify certain threshold value or working stress.	

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198	6/3.2.1.2 & Table 6.3.1	Question	stiffener arrangements	2006/11/10	It seems that “Internal members and plate boundary between spaces with the same category of contents that are categorized into Stiffener on boundaries to heated cargo tanks specified in the 2nd column in the table” are not applicable to the structural members in ballast water tanksPlease indicate example.Or has it described on the item of “Plate boundary between spaces having a different category that are categorized into Heated cargo tank specified in the 2nd column in the table”?	The section of the table applies to "Internal members" OR "plate boundary between spaces with the same category of contents"A stiffener is "in" a ballast tank.	
261	Table 6.5.2	Question	leg size	2006/12/8	Table 6.5.2 gives the minimum leg size to be complied with in all cases, and minimum leg size in the table is 4.0mm. However, there are some locations where even such small leg size is not necessary from strength point of view, such as beams and stiffeners in deck houses. Because of thin plate thickness thereof, larger leg size tends to lead to larger plate distorsion, and thus poor quality. Therefore, we propose to reduce the minimum leg size to 3mm in deck houses and superstructures.	The proposal will be considered in future Rules update.	
265	Table 6.3.1 & Table 12.1.2	Question	round gunwale	2006/11/7	In case of round gunwale, where is the border between deck plating and side shell for determination of applicable corrosion additions?	It is at lower turn of gunwale radius.	
295	6.5.5.2	Question	Slot Welds, Closing Plate	2006/12/8	In this sentence, maximum width, wslot, is defined and Technical Background says that this requirements are in accordance with LR rules Pt.3, Ch 10,2.4.Judging from LR rule and other relevant rules, we assume that “maximum” is editorial error and “minimum” is correct. Please kindly confirm.	We confirm that “maximum” is editorial error and “minimum” is correct. We will correct this in the future Rule update.	
316	6/2.1.1.2	CI	Application of CSR vs IMO PSCS(SOLAS II-1/3-2)	2006/12/7	For ships contracted for construction on or after the date of IMO adoption of the amended SOLAS regulation II-1/3-2, by which an IMO “Performance standard for protective coatings for ballast tanks and void spaces” will be made mandatory, the coatings of internal spaces subject to the amended SOLAS regulation are to satisfy the requirements of the IMO performance standard.	The above requirement simply uses the wording ‘date of adoption of the amended SOLAS regulation II-1/3-2’. It is considered necessary to clarify the meaning of this date. This is the date of adoption by IMO MSC 82(Maritime Safety Committee 82nd session) of the resolution amending the SOLAS regulation II-1/3-2. (Note: (1)The date of adoption is 8 December 2006; (2)IMO PSPC = IMO Resolution MSC.215(82); (3) SOLAS II-1, Part A-1, Reg.3-2 = IMO Resolution MSC.216(82))	

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388	6/2.1.1.2	Question	PSPC	2007/2/5	Since PSPC has been adopted by IACS as of Dec. 8, 2006, not by IMO, if the Builder and Ship owner agreed not to apply PSPC, is it acceptable to the Class or not?	On 8 December 2006, IMO adopted amendments to SOLAS by resolution MSC. 216(82) which mandate compliance with the new IMO "Performance Standard for Protective Coatings for dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers", (IMO PSPC, Resolution MSC. 215(82)). Compliance with the IMO PSPC is required by the IACS Common Structural Rules for Bulk Carriers and for Oil Tankers for ships subject to those Rules which are contracted for construction between ship builder and ship owner on or after 8 December 2006. The relevant Rule references are the following: - IACS CSR for Bulk Carriers Chapter 3, Section 5, 1.2.2;- IACS CSR for double hull oil tankers, Section 6, 2.1.1.2. Therefore, for such ships (i.e. ships subject to CSR) the answer is "PSPC is to be applied if they are contracted for construction between ship builder and ship owner on or after 8 December 2006". For other ships, the answer is that PSPC is to be applied in accordance with IMO Resolution MSC 215(82) and IMO MSC 216(82).	
397	6/5.7.1.2	Question	Stiffeners	2007/3/9	According to Sec.6 5.7.1.2, the leg length of fillet weld is taken as the greatest of (a), (b), (c). We are studying one tanker which length is about 180meters. The leg length of stiffeners to non-tight bulkheads in ballasts tanks is calculated at about 4.0mm by (a) and (b). By (c), however, it increases to 6.5mm or 6.0mm to comply with the minimum leg size of Table 6.5.2. stiffeners are determined as 150x11 flat bars, and arranged at every side shell longitudinal's position at every web section. Pressures on non-tight bulheads are incomparably less than those on tight boundaries such as side shell, upper deck, bottom, inner bottom and inner hull. Low pressures are emphasized by Sec.8, 2.5.8, which requires aggregate opening area over 10% of the area of the non-tight bulkhead. Having these understandings, we would like to ask if it is possible, as like Table 6.5.1, to require different leg lenths to minimum between ' tight' and 'non-tight' bulkheads. The exemption from 5.7.1.2 (c) or less minimum requirement in Table 6.5.2. as like Table 6.5.1 in case of stiffeners to plating of non - tight boundaries may be methods.	The following “Rule Clarification” to Table 6.5.2 has been included in Corrigenda 1 to CSR for Tankers (effective 1 April 2006): “For items c) and d) a reduction to 5.5mm leg for the secondary structural elements of carling, buckling stiffeners and tripping brackets may be applied without additional gap control.” We interpret that the Rule clarification also applies to the non-tight bulkhead stiffeners in double skin spaces. We intend to include this effect into the rule text at the next rule change.	
464	6/5.7.1	Question	Weld Factors	2007/6/11	It seems that weld factor "f_weld" for the connection between web and flange of builtup stiffeners is not defined in the Rules. What weld factor is to be used?	The same weld factors "f_weld" as that used for the connection between the stiffener web and attached plating are to be used.	
481	Sec.6 / 3.1	RCP	Full corrosion addition for oil chemical tankers	2007/8/28	With reference to KC ID 121: The requirement to apply the full corrosion addition for oil chemical tankers designed to transport cargoes falling under the IBC Code appears to be too resstrictive. In view of the high quality of coatings and the permanent maintenance of the coating we propose to reduce the corrosion additions. Maintaining the protective coating in the cargo hold area is of vital interest to the ship owner. Damages to the coating could pollute the cargo which would lead to economic losses to the ship owner. These economic impacts are more severe than the consequneces of possible damages to the ship structure caused by corrosion. Consequently the full corrosion additions are additional steel weight which most likely will not be subject to corrosion.	The comment is noted however it is decided that the same corrosion margin shall be applied in cargo tanks with or without coating.	

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505	Sec.6/5	Question	Welding Require-ments	2007/11/18	Welding requirements: a) Please clarify if Table 6.5.2 apply only to fillet weld or also to partial penetration welding? b) The reference to weld factor f_1 in Section 6/5.7.4.1 seems wrong. We assume it should be weld factor f_weld.	We respond to the question in the same order as they appear: a)Table 6.5.2 is applicable to all type of welding b)Yes we agree the factor should be fweld, not f1. The rules will be corrected at first opportunity.	
593	6/2.1.2.2	Question	Permanent Anodes in tanks made of, or alloyed with magnesium	2007/11/22	1) The 1st sentence of Section 6/2.1.2.2 indicates that permanent anodes in tanks made of, or alloyed with magnesium are not acceptable except in tanks solely intended for water ballast. From this sentence, it appears that the “tanks solely intended for water ballast” include ballast tanks adjacent to cargo tanks. If so, this requirement conflicts with IACS UR F1.2 and the existing ABS Rules 5C-1-1/5.9.2 as follows: - IACS UR F1.2 indicates “Magnesium or magnesium alloy anodes are not permitted in oil cargo tanks and tanks adjacent to cargo tanks”. - ABS Rules 5C-1-1/5.9.2 indicates “Magnesium and magnesium alloy anodes are not to be used”. Please advise. 2) The 2nd sentence of Section 6/2.1.2.2 indicates that impressed current systems are not to be used in tanks due to the development of chlorine and hydrogen that can result in an explosion. From this sentence, it appears that the “tanks” mean “any tank including ballast tanks not adjacent to cargo tanks”? If so, this requirement conflicts with IACS UR F1.1 and the existing ABS Rules 5C-1-7/31.13 as follows. IACS UR F1.1 indicates “Impressed current systems are not permitted in oil cargo tanks”. ABS Rules 5C-1-7/31.13 indicates “hull fittings….containing terminals for anodes or electrodes of impressed current cathodic protection system are not to be installed in cargo tanks. However, they may be installed in harzardous areas, such as cofferdams adjacent to cargo tanks….provided all of the following are complied with:…….” Please advise.	1)The 1st sentence of Section 6/2.1.2.2 is to read “Permanent anodes in tanks made of, or alloyed with magnesium are not acceptable except in tanks solely intended for water ballast that are not adjacent to cargo tanks. 2)The 2nd sentence of Section 6/2.1.2.2 is to read “Impressed current systems are not to be used in cargo tanks due to the development of chlorine and hydrogen that can result in an explosion. We intend to fix the Rule text accordingly at the next chance of corrigenda.	
596	6/5.7	Question	One sided welding	2007/11/20	One sided welding has been accepted by some existing class rules for stiffeners fitted in deck houses or superstructures. Please consider acceptance of one side welding also for CSR provided that: 1. Ths welding is limited to the welding between stiffeners and attached plates in deck houses and superstructure only. 2. Welding at the ends of stiffeners are to comply with 6/5.7.5	One side continuous fillet welding could be accepted for stiffeners in deck houses or superstructures subject to the following; 1. Exclusion from application of this welding method Positions affected by concentrated loads and excessive vibration such as under winches, cranes, davits and machineries. 2. Welding size is to be of the fillet required by 6/5.7.1 for intermittent welding, where f2 factor is to be taken as 2.0. 3. Welding at the ends of stiffeners is to comply with 6/5.7.5	

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600	6/2.1.2.6	Question	Anodes attached to stiffeners or aligned in way of stiffeners	2007/11/22	6/2.1.2.6 indicates: "Anodes are to be attached to stiffeners or aligned in way of stiffeners on plane bulkhead plating, but they are not to be attached to the SHELL". Does this "SHELL" mean bottom and side shell only, or include internal bulkhead/deck plating?	"Shell" means side and bottom shell plating only.	
608	Table 6.5.4	Question	Welding Factors	2008/1/10	From the welding factors indicated in Table 6.5.4, it seems that the welding factor for “To face plate” is not greater than that for “To plating”. If so, presume that “Note 3” is also applicable to the weld factor for “primary support member of gross face area greater than 130.0 at ends” to “face plate in tanks” of “0.59”. Please confirm and edit the Table as appropriate.	“Note 3” should apply also to the weld factor for “primary support member of gross face area greater than 130.0 at ends” to “face plate in tanks” of “0.59”. We intend to correct the Table 6.5.4 at the next chance.	
641	Table 6.5.2	CI	welding leg length in ballast tanks	2008/3/6	According to Table 6.5.2, min. welding leg length in ballast tanks outside cargo tank region is the general value to 4.5mm and 6.0 of min. welding length is only applicable for cargo tank region. In our experience ballast tanks outside cargo tank region i.e. A.P. & F.P Tk are more critical w.r.t. corrosive environment, vibration, high acceleration and bow impact. We propose the following C.I./correction of Sec.6 Table 6.5.2. d) All welds in cargo tank region and ballast tanks, except in (c)------ 6.0	We do not see any necessity of rule change at the moment therefore the current requirements are retained as it is.	
645	Table 6.5.1	Question	Weld factors for closing arrangements	2008/3/14	Item (9) in Table 6.5.1 indicates weld factors for closing arrangements (e.g. hatch coamings and hatch covers). Please advise to which location these requirements are to be applied, particularly on the following options: Option (1): Freeboard deck only, Option (2): Option (1) + superstructures and deck houses directly protecting opening leading below freeboard deck, or Option (3): All exposed location including higher tiers of deck houses.	We confirm your option (3) is correct interpretation.	

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652	Table 6.5.3	Question	Welding requirements between strength deck plating and sheer strake	2008/3/14	Table 6.5.3 indicates welding requirements between strength deck plating and sheer strake. (1) The wording “stringer” and “sheer strake” used in Table 6.5.3 implies that the requirements in this table are primarily applicable to the location subjected to the hull girder stresses (e.g. amidships 0.8L). If so, we presume that the welding requirements for aft peak and fore peak regions could be somewhat reduced. Your consideration on this and future rule change, if necessary, is invited. (2) In the aft peak and fore peak regions, in many instances thick insert plates are locally used in way of deck fittings (e.g. towing and/or mooring fittings), and sometimes they are extending to the side shell. If such locally increased plate thickness are used, the welding requirement in Table 6.5.3 may become overly excessive. Therefore, we consider that ordinary deck plate thickness at that location could be used instead of locally increased plate thickness to determine weld sizes in accordance with Table 6.5.3. Please confirm.	1) The requirements in table 6.5.3 should be applied over the whole 100% length of the ship. issue at hand is not only related to strength but to watertightness as well and good design detail. 2) We agree that the deck thickness and not the increased thickness due to insert should be used for the estimation of weld leg as prescribed in table 6.5.3.	
687	Table 6.5.1	Question	The Weld Factor	2008/3/26	Item (1) in Table 6.5.1 indicates the weld factors for “General application”, and items (2) through (11) indicate weld factors for each specific location or structural members. However, where the welding location or structural member in question is listed in both (1) and (2) through (11), is it necessary to use the greater one? Or, can we just use the factor in (2) through (11), where listed? For example, in case of “Stiffeners to plating for 0.1 span at ends” in fore peak, According to (1), the factor is 0.21 According to (6), the factor is 0.18 In this case, which factor is to be used? Please advise on the above, and add a “Note” in the Table to make it clear.	For instances where an item is repeated in more than one location, the greater of the requirements is to be applied.	

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695	6/2.1.3.1	Question	Aluminium Coating	2008/6/5	Please clarify the conflicting requirement between CSR-T Section 6 2.1.3.1 and UR F2 regarding the use of Aluminium coating. The use of Aluminium coatings is accepted by CSR-T if the coating passes the appropriate tests or is less than 10 percent aluminium by weight even though it is prohibited by UR F2. For your reference, we list the rule text as follows, (Quote) CSR-T Section 6 2.1.3 Paint containing aluminium: 2.1.3.1 Paint containing aluminium is not to be used in positions where cargo vapours may accumulate unless it has been shown by appropriate tests that the paint to be used does not increase the incendiary sparking hazard. Tests need not be performed for coatings with less than 10 percent aluminium by weight. UR F2 : Aluminium Coatings on Board Oil Tankers and Chemical Tankers The use of aluminium coatings is prohibited in cargo tanks, cargo tank deck area, pump rooms, cofferdams or any other area where cargo vapour may accumulate. Aluminised pipes may be permitted in ballast tanks, in inerted cargo tanks and, provided the pipes are protected from accidental impact, in hazardous areas on open deck. (Unquote)	We agree that 6/2.1.3.1 is not consistent with UR F2 and confirm that 6/2.1.3.1 applies for CSR tankers. We will bring this up in IACS Hull Panel to clarify if CSR Tank or UR F2 should be updated to ensure consistency. Update March 2009: Hull Panel have agreed that UR F2 should be amended to align with Tanker CSR.	
782	Text 6/4.2.2.1	Question	oil tankers request a minimum inside bending radius for corrugated bulkhead equal to 4.5t	2008/8/29	CSR Rules for oil tankers Section 6, 4.2.2.1 CSR Rules for oil tankers request a minimum inside bending radius for corrugated bulkhead equal to 4.5t (t = gross thickness). It appears to be a very severe criteria compared to CSR Rules for bulk carrier, Ch 3, Sec 6, 10.4.2 and IACS Rec 47 , table 6.3 (3t, t assumed to be gross thickness). Could you give us the explanation of this difference ?	The minimal inside bending radius required in CSR-OT(4.5t gross) is in accordance with DNV Pt.3, Ch1, Sec 3, C1100. Only the criteria specified in DNV Rules for stainless steel is not applicable with CSR-OT and it is left to the individual society. A lesser radius can be accepted on the basis of the requirements in Section 6/4.2.3.	
790 attc	Text 6/5.3.4.3	Question	penetration welds	2008/8/29	According to Sec 6/ 5.3.4.3, full penetration welds are to be used for the following connections: (a) Lower ends of vertical corrugated bulkhead connections (b) Lower ends of gusset plates fitted to corrugated bulkheads Based on experience, we considered it to be sufficient that full penetration welds are only used for the corners of the lower parts of corrugations (see sketch (A)) and deep penetration welding may be used for the remaining parts of such corrugations. Are full penetration wlds which are used only for the corners of the lower parts of corrugtions considered to be acceptable?	The Rules require full penetration weld along the entire length of the corrugation. This requirement is in line with UR S18.	Y

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810	6/1.2.3.1	CI	Material class III	2008/8/22	Material class lll to be required for rudder and rudder body plates subject ot stress concentrations in way of lower support of semi-spade rudder or at upper part of spade rudder. Should it be required since rudder is not part of scope?	Rudder is not part of the scope of CSR Tanker. We will amend the Rules to remove this requirement.	
815	6/5.7.1.2	Question	welding leg length	2008/9/5	In the subject Rules, welding leg length is to be not less than f1 * t p-grs (t p-grs : the gross plate thickness, in mm. is generally to be taken as that of the abutting member (member being attached)). Does this “generally” mean that this is not compulsory? Very often relatively thicker plate is proposed in some designs for the fact plate of PSM. For instance, for built up non-Tee type (L3 type), face plate of PSM is abutting member to the web plate. This causes very thicker welding leg length size. Although 6/5.7.1.5 shows the req'd welding size in case abutting longitudinal stiffener is greater than 15 mm, req'd welding size is not reduced (Our understanding is the original intention for this paragraph is to reduce the req'd welding size). Our understanding is that 6/5.7.1.5 was from LR Rules with slight modification due to the difference between throat thickness & leg length. However in LR Rules, factor can be reduced down to 0.21 if member is not located in tanks although there is no difference in CSR tanker. Is welding size to be as req'd in Rules ? Of if there is any other alternatives, please advise.	The weld size is determined by the scantling of the lesser plating thickness of the member being joined (at the point of joining). Therefore, in the case of an L3 angle, with the face plate being welded to the web of the stiffener, we can base the weld size for the joining of the web to the flange on the thinner of the web and the flange.	
900	6/5.7.4.1	Question	primary support members	2009/4/7	Welding of end connections of primary support members (i.e. transverse frames and girders) is to be such that the weld area, Aweld, is to be equivalent to the Rule gross cross-sectional area of the member. In terms of weld leg length, lleg, this is to be taken as by formula. What is the definition of Rule gross cross-sectional area, whether prescriptive requirements area (with reduction to 85%) or the t gross thickness all the rule requirements complying FE analysis (including buckling)? And what is the definition of t p-grs?	t p-grs (Rule gross thickness) is to be taken as the Rule required gross thickness considering all requirements in Section 8,9 and 10	
901 attc	Table 6.5.4	Question	weld factor	2009/4/7	In the Table 6.5.4, the weld factor is selected based on position of ‘at ends’ and ‘remainder’. ‘At ends’ is considered area where high shear area as the interpretation on Note 1 in Table 6.5.4. Is the weld factor for ‘at ends’ to be applied for the extremely extruded bracket toe as attachment? Or is there any other guidance whether ‘at ends’ or not?	Reduced length for ‘at ends’ can be accepted for arrangements where large backing brackets are fitted as indicated in our attachment (the T/BHD to L/BHD connection). Hence the weld factors ‘at ends’ need not extend beyond the toe of the member for this kind of arrangements.	Y

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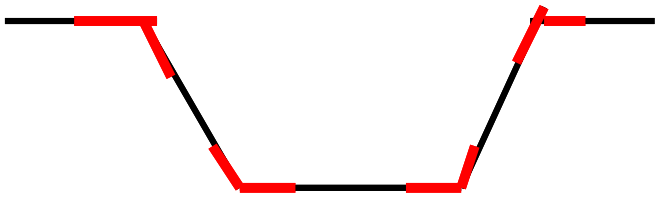
939	Text 6/5.3.4.1	CI	welding	2009/9/23	According to the stipulation in Sec 6/5.3.4.1 & 5.8.1.1, increased fillet welds or penetration welds should be applied to the areas where high tensile stresses act through an intermediate plate. The areas have been specifically described in Sec 6/5.3.4.1 (a) ~ (f). Add to this I wonder if the connection between PSM and intersecting stiffeners(LSM) could be included in the specific area mentioned in Sec 6/5.3.4.1. Please clarify.	The requirements in Section 6/5.3.4.1 is for the connection between PSMs and it is not applicable to the connection between PSM and LSM.	
942	Table 6.1.3	RCP	deck strakes material class	2009/10/23	RCP regarding the material class specified in Table 6.1.3 of CSR Tanker. In table 6.1.3 of CSR Tanker, deck strakes at longitudinal bulkheads are defined as "SPECIAL". On the other hand, according to IACS UR S6 Rev. 5, deck strakes at longitudinal bulkheads, excluding deck plating in way of the inner skin bulkheads of double hull ships are defined as "SPECIAL". Hence, the material class is required to be Class III for deck strakes at longitudinal bulkheads including inner skin bulkhead within 0.4L amidships by CSR Tanker, while it is required to be Class II for deck strakes in way of the inner skin bulkheads of double hull ships within 0.4L amidships by IACS UR S6 Rev.5 because such members are defined as "PRIMARY". We believe it is reasonable that deck strakes in way of the inner skin bulkheads of double hull ships is defined as "PRIMARY" not "SPECIAL" because such members are located very close to stringer plates and sheer strakes compared to deck plates at other longitudinal bulkheads. Therefore, we would like to propose that table 6.1.3 be amended so that it is in line with Table 1 of IACS UR S6 Rev.5.	Your proposal is agreed with and will be considered at the next Rule Change Proposal.	
956	Text 6/5.7.1.2 & KC ID #815	RCP	fillet weld size	2009/9/23	KC815 gave a clarification on fillet weld size of L3 type built-up construction. In general, the face plate thickness of L3 type is determined to make the stress not to exceed allowable stress. Accordingly, the load supporting face plate through fillet weld is proportional to the face plate thickness, in general. From the above viewpoint, the fillet weld size of L3 type should be determined based on the face plate thickness. This idea of determination of fillet weld size corresponds to 6/5.7.1.2 of CSR-OT, however, conflicts to the answer of KC815. Please cancel the answer of KC815.	The size of fillet weld is generally that of the thickness of the thinner of the two items being joined. Large fillet welds may cause unacceptable distortion and/or high residual stresses. KC ID 815 is for the welding of face plate to the web of stiffeners. The welding of web of stiffener to the deck plate should be based on 5.7.1.5. With reference to Table 6.5.4 (connection of PSM) please also bear in mind that the requirements "to face plate" is less than "to plating". The reply in KC ID 815 will be retained.	
959	Text 6/2.1.2.6	Question	anodes	2009/9/23	CSR Tanker Section 6/2.1.2.6 states "Anodes are to be attached to stiffeners or aligned in way of stiffeners on plane bulkhead plating, but they are not to be attached to the shell". In this connection, please advise if "plane bulkhead plating" is intended to be tight bulkhead (e.g. tank boundaries) only or including non-tight members (e.g. non-tight floors, girders, transverses etc.).	The Rules allow two options: - Anodes are to be attached to stiffeners; OR - Anodes aligned in way of stiffeners on plane bulkhead plating (tight or non-tight).	

KCID No.	Ref.	Type	Topic	Date completed	Question/CI	Answer	Attachment
984	6/5.4.1.2	CI	Lapped joints	2010/1/19	Is the requirement of Section 6/5.4.1 (i.e. overlap width to be 3 to 4 times thinner gross plate thickness) applicable to outfitting items of not subject to high tensile or compressive loading, e.g. collar plate in way of pipe penetration?	The requirement is also to be applied to outfitting items.	
990	6/5.7.4.1	CI	Welding of end connections of primary support members	2010/3/8	Welding of end connections of primary support members (i.e. transverse frames and girders) is to be such that the weld area, Aweld, is to be equivalent to the Rule gross cross-sectional area of the member. 1)Please clarify whether the Rule gross cross-sectional area is the required one or offered one. 2)If this is the required cross sectional area, the thickness increase due to buckling should not be included. Please clarify.	1) The Rule gross cross-sectional area is the required area. 2) Buckling is to be included.	
1061	6/5.7.4.1	Question	Gross thickness used in the calculation of web length length	2010/8/12	“tp_grs” used for the formula of weld leg length in Sec.6/5.7.4.1 is defined as “rule gross thickness of primary support member”. On the other hand, “tp_grs” in Sec6/5.7.1 and 5.8.1 is defined as “the gross thickness”. Is the reason for the difference of these definitions to allow “rule gross thickness” to mean rule required gross thickness and “the gross thickness” to mean as-built thickness? Or, since Sec.6/5.1.1.1 specifies “In general, weld sizes are based on the Rule gross thickness values” and it is answered in KC ID 117 that “It is confirmed that the weld sizes in the IACS CSR for Tankers are based on the gross required thicknesses of the items being joined”, may weld leg length be calculated based on rule required gross thickness? (i.e. even where as-built thickness is greater than rule required gross thickness, may weld leg length be determined based on rule required gross thickness?) Please clarify.	Where the Rules specifically state "Rule gross..." then the Rule required gross thickness should be used otherwise the as-built value should be used.	
1066	6/2.1.2.6	Interpretation	Anodes welded on floor or tight plane bulkhead	2010/8/12	Please advise that anode supports welded smoothly on floor or tight plane bulkhead plating are acceptable as an alternative of Section 6/2.1.2.6.	Your proposal is acceptable.	

KCID No.	Ref.	Type	Topic	Date completed	Question/CI	Answer	Attachment
1069	Text 6/5.1.1.1, Text 6/5.7.1.2, 5.7.4.1, 5.8.1.1	Question	Application of "gross thickness" values in formulae	2010/11/4	With regard to KC ID 1061, we note the answer well with thanks but would like to confirm the following: CSR-T Sec 6 / 5.1.1.1, which is a general provision, says “In general, weld size are based on the Rule gross thickness values.” In addition, tp-grs is defined as either ”gross thickness” or ”rule gross thickness” in each rule formula. Considering the KC's answer, if tp-grs is defined as ”gross thickness” in the rule formula, the rule formula is to be calculated by as-built gross thickness regardless of 5.1.1.1. 5.7.1.2 : tp-grs=gross thickness 5.7.4.1 : tp-grs=rule gross thickness 5.8.1.1 : tp-grs=gross thickness Please confirm whether the above understanding is correct or not.	Your understanding is correct.	
1083	6/4.1.2.3	Question	Text removed from the Rules or permit alternative procedures for confirming such alignment.	2010/11/15	Section 6/4.1.2.3(h) requires "The final boring out of the propeller boss and stern frame, skeg or solepeice fit-up and alignment of the rudder, pintles and axles, are to be carried out after completing the major part of the welding of the aft part of the ship. The contact between the conical surfaces of the pintles, rudder stock and rudder axles are to be checked before the final mounting." We note that the first sentence of this comes from the LR Rules Pt. 3, Ch. 1, Sec.8.2.3 (July 2001 Edition). Regarding the first sentence, "The final boring out of the propeller boss and stern frame, skeg or solepeice fit-up and alignment of the rudder, pintles and axles, are to be carried out after completing the major part of the welding of the aft part of the ship." We note that one major shipbuilder carries out shaft alignment work in block stage and has done this successfully for many years. We contend the above be open to alternative procedures. Further such items as indicated in the requirements "The final boring out of the propeller boss and stern frame, skeg or solepeice fit-up and alignment of the rudder, pintles and axles, are to be carried out after completing the major part of the welding of the aft part of the ship. The contact between the conical surfaces of the pintles, rudder stock and rudder axles are to be checked before the final mounting.", are fabrication issues that need not be specifically addressed in the Common Structural Rules. It is believed that this text should be removed from the Rules or that the Rules clearly permit alternative procedures for confirming such alignment. Your prompt reply on this matter would be highly appreciated.	The Rules state that alignment should be carried out after completing the major part of the welding of the aft part of the ship. An alternative procedure to the shaft alignment may be accepted and should be reviewed by the Classification Society. As for the pintle this is a local system which would be relatively unaffected by block assembly and floating out provided all the work in the block has been completed.	

KCID No.	Ref.	Type	Topic	Date completed	Question/CI	Answer	Attachment
1093	Table 6.1.3	Question	Requirement of material class witnin 0.4L amidships	2011/4/11	Quoted: Table 6-1-3 Note 2 : Single strakes required to be of material class III or E/EH are, within 0.4L amidships, to have breadths not less than 800 + 5L mm, but need not be greater than 1800mm. Table 6.1.3, Note 6 : (For Bilge strake only) To be not lower than D/DH within 0.6L amidships of vessels with length, L, exceeding 250m. Unquoted: Question: This width requirement is explicitly applicable to “within 0.4L amidships” in Note 2 and then, it is understood that there is no such width requirement in Note 6. Please confirm.	The width requirement is generally applicable within 0.4L.	
1102 attc	6/5.3.4.3	Interpretation	Clarification for the types of welding on collar plates	2011/7/8	Full penetration welding 6/5.3.4.3: e) edge reinforcements within 0.6L amidships to the strength deck, sheer strake, bottom and bilge plating, when the transverse dimensions of the opening exceeds 300mm, see Figure 6.5.5. Where collar plates are fitted in way of pipe penetrations, the collar plate is to be welded by a continuous fillet weld. Please clarify what type of welding (full or fillet) should be applied for 4 cases (See attachment).	1a) Case 1 (opening is equal or greater than 300mm): A(full penetration welding) -> sleeve can be regarded as an edge reinforcement. (similar situation to the example in Figure 6.5.5) 1b) Case 1 (opening is less than 300mm): A(continuous fillet welding) 2) Case 2 : A(continuous fillet welding), B(continuous fillet welding) 3) Case 3 : A(continuous fillet welding) -> pipe is not an edge reinforcement. 4) Case 4 : A(continuous fillet welding)	Y
1103	Fig 6.5.5	Question	Clarification for the types of welding on edge reinforcements	2011/7/8	Do the welds, between sleeves (p/v stand pipe penetration) and strength deck within 0.6L, when transverse dimension of the opening exceeds 300 mm, have to be performed as full penetration welds?	1) Please refer to the answer to KC 1102.	
1129	6/5.4.1.1	Question	Clarification for lapped joint	2013/3/27	According 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: 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". 2. What size of opening shall meet this requirement? Specific size of opening can be proposed i.e "This requqirement is applicable only for opeing size b>300mm.	Application of 6/5.4 for pipe penetration is subject to the approval of individual society.	

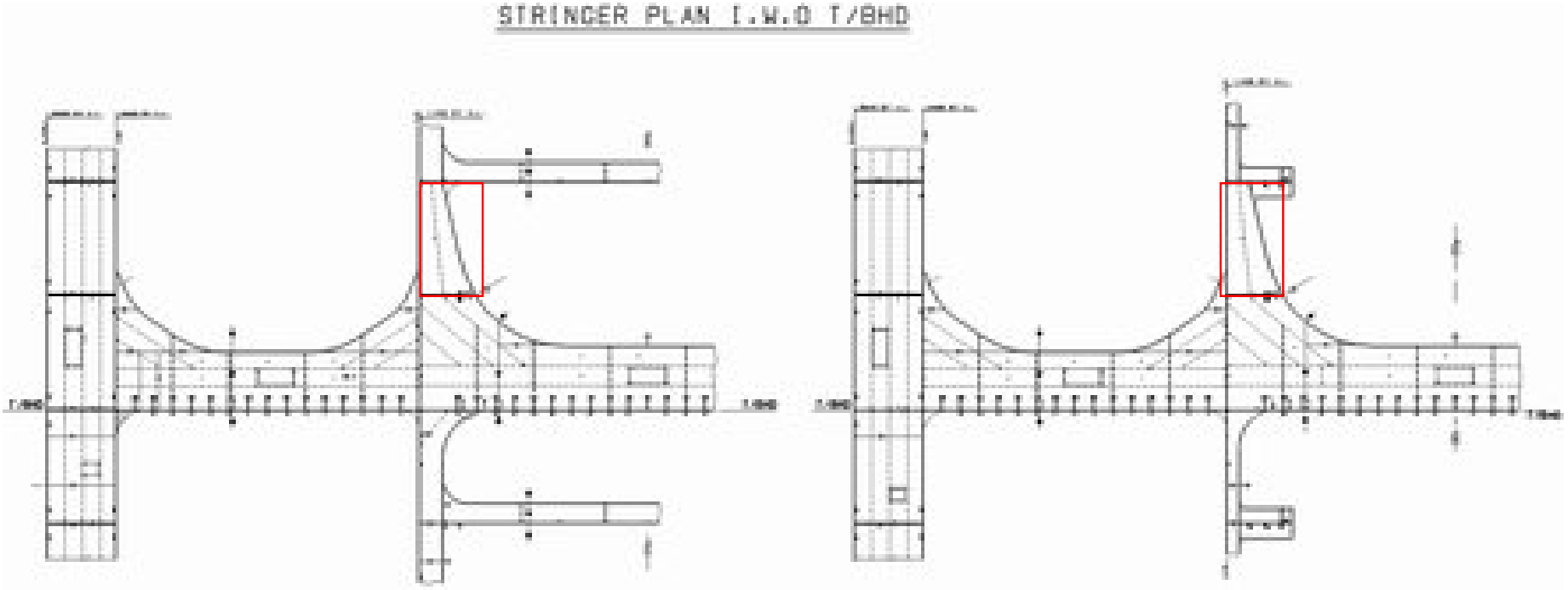
KC#790



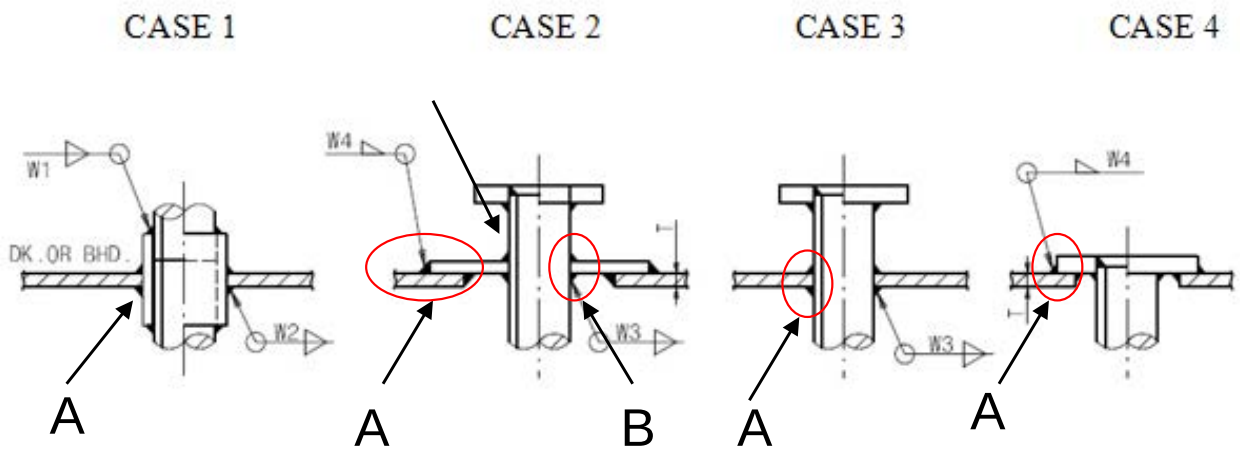
Corner (Full Pene.)

KC#901

Stringer plan iwo T/BHD



KC#1102



Case 1 : A(?)
Case 2 : A(?), B(?)
Case 3 : A(?)
Case 4 : A(?)