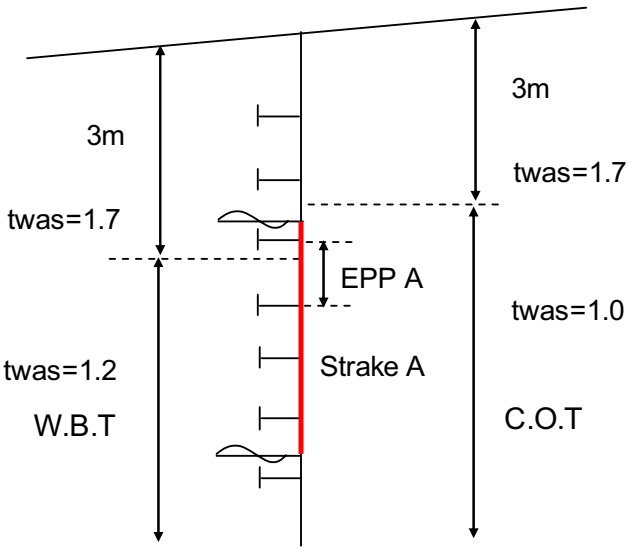
Tanker Q&As and CIs on the IACS CSR Knowledge Centre

KCID No.	Ref.	Type	Topic	Date completed	Question/CI	Answer	Attachment
420 attc	3/5.1	Question	Calculating the scantling of the plate strake	2007/11/22	In calculating the scantling of the plate strake A shown in Fig.1 (see attachment), do we need to apply 1.7+1.0>>3.0+0.5=3.5 mm to the strake A in whole or only to the EPP A? Please clarify.	a) The effect of heating from sun is assumed to extend 3.0m from weather deck. This distance 3.0m is the same on both sides of the inner side using the height in the lowest tank as reference and not as shown in the figure where different reference points are used to measure the 3m in ballast and in the cargo tank. The corrosion addition for inner side within 3.0m from weather deck will then be 1.7+1.7+0.5= 4.0 and 1.0+1.2+0.5= 3.0mm below. There are no intermediate zones. b) If corrosion margin in EPP A is 4.0mm then scantling requirement for the entire Strake A is determined on the basis of 4.0mm (Note: This answer is now superseded by the answer to KC ID 1072.)	Y
578 attc	3/5.3.3.4	CI	Inertia / Stiffness when web depth is less than rule minimum	2008/3/28	Please clarify how to calculate equivalent moment of inertia /stiffness when web depth is less than rule minimum.	Please see attached file: 3.2 - (CIP) Common Interpretation April 2008	Y
595	3/5.2.1.3	CI	Required Scantling for Group Stiffeners	2008/1/9	It is understood that the required scantling for grouped stiffeners can be applied to the stiffeners used with the same scantling in groups longitudinally, vertically or horizontally regardless of spacing and effective span of stiffeners. Please clarify.	Grouping is limited to one panel (e.g. plates and stiffeners limited by PSM) and the stiffeners are compared using the requirements stated for grouping within that panel, based on the requirements in Section 8. The concept of grouping is based on that we may allow some stiffeners to be slightly below the requriement, as long as others are well within such that the total strength of that panel is not compromised	
737	Sec 3/ 2.1.3	CI	computer programs for determination of scantlings according to CSR and for FEM analysis.	2008/4/29	CSR for tankers make a reference to recognized computer programs for determination of scantlings according to CSR and for FEM analysis. However, in Section 3, [2.1.3], the term "recognized computer program" is not well defined i.e. there is no clear procedure or criteria to demonstrate that a computer program is (or is not) recognized by classification societies. Can CSR PT2 create a COMMON procedure of recognition of computer programs?	We will consider this task as future development.	

KCID No.	Ref.	Type	Topic	Date completed	Question/CI	Answer	Attachment
1058	3/2.2.3	Question	Indication of corrosion additions in the plans placed onboard ship	2010/8/12	According to Sec.3/2.2.3 CSR DHOT, the plans indicating both the as-built and renewal thicknesses are to be placed onboard the ship. In this connection, please advise acceptability of indicating the wastage margin (corrosion addition), instead of directly indicating the renewal thicknesses as follows: Option 1: Indicate renewal thickness formula and corrosion addition indicated beside the as-built thickness, tas-built of each member. Option 2: Indicate renewal thickness formula and corrosion addition DIAGRAMS/SKETCHES similar to CSR DHOT Figure 6.3.1 but also showing typical transverse sections, profiles or plans with boundaries of tanks and watertight compartments. In both options, the following are to be indicated. (a) The description and formula to obtain renewal thickness (tren = tas-built - tcorr - town) (b) The owner/builder specified additional wastage allowance, town, if applicable, (c) Description to apply higher corrosion addition to entire strake (based on KC420) Your prompt reply on this matter would be highly appreciated.	Your proposed option 1 is acceptable as long as the information in a, b and c is provided for all structural members. A common interpretation will be issued shortly to provide further guidance.	

KC#420

Fig. 1



CI-T 5 Calculation of equivalent moment of inertia/stiffness

(Mar. 2008)

Rule Section

3/5.3.3.4 Bending requirements of primary support members
Knowledge Centre Question No 151

Description

Procedure of calculation of equivalent moment of inertia / stiffness when web depth is less than rule required minimum.

Common Procedure

Where it is impracticable to fit a primary support member with the required web depth, then it is permissible to fit a member with reduced depth provided that the fitted member has:

(A) the same moment of inertia or
(B) the same maximum deflection

as that of an imaginary member, which is equivalent to the Rule required member. The following procedure should apply.

1. Create an imaginary member equivalent to that required member with the following properties:
   Web
   - Web depth is to satisfy the required depth
   - Web thickness is to satisfy the minimum thickness and slenderness (s/t) ratio
   - Shear area is to satisfy the required area

   Attached Plate
   - Effective width of attached plate is to be taken at mid-span in accordance with Section 4/2.3.2.3
   - Thickness of attached plate is to satisfy the local thickness requirements required at the mid-span

   Face Plate
   - In association with the above web and attached plate, face plate having sufficient area is to be attached to meet the required section modulus of mild steel. For this purpose, the face plate need not satisfy the minimum thickness and proportion (breadth and thickness) requirements.
   - The required section modulus may be reduced to 85% provided that the reduced scantlings comply with the Finite Element cargo tank structural analysis
2. In case where the offered member has uniform beam properties, then the moment of inertia of the imaginary equivalent member as calculated in item 1 is the required moment of inertia.
3. In case where there is significant variation of beam properties along the length, then it would be adequate to demonstrate that, under the Rule loading, the offered member of non-uniform cross section gives equal or less maximum deflection than that of the imaginary equivalent member as calculated in item 1. Then the moment of inertia of the proposed member may be partially less than the required moment of inertia.
4. The offered member is to satisfy all the requirements except the required depth. The section modulus requirement is to be satisfied with the effective width of attached plate at the ends.

Implementation date

This CI is effective from 1 April 2008.

Background

This procedure is based on the existing ABS practice.