

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

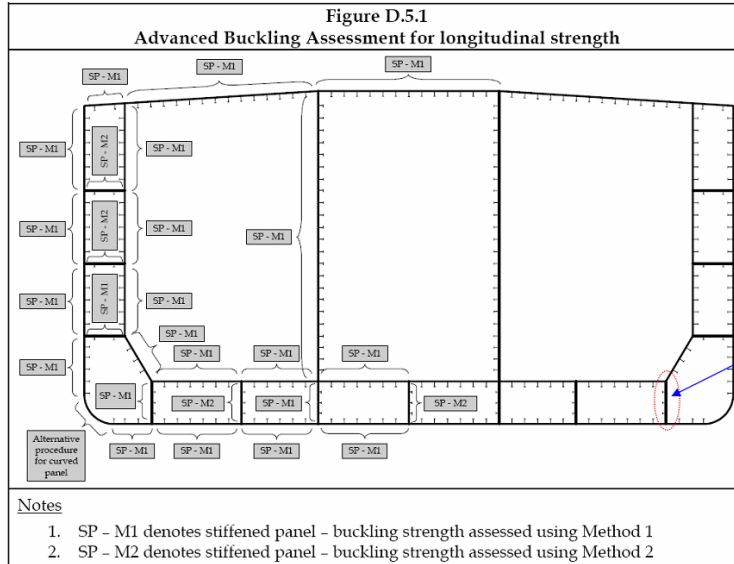
KCID No.	Ref.	Type	Topic	Date completed	Question/CI	Answer	Attachment
178	App D/1.1.2	Question	Background to advanced buckling analysis	2006/10/9	In Appendix D/1.1.2, the rule reads that the reference advanced buckling procedure is given in the Background to Appendix D. The detailed Background should be added to the Appendix D in order to carry out the advanced buckling analysis by each society, according to the JTP rules.	The general procedure for carrying out advanced buckling analysis is given in D/2 and information necessary for such analysis is available there. Alternative methods may be used provided that the effects described in D/2 are accounted for, and that the alternative method gives results that are comparable and consistent with those obtained using the reference procedure. The permissible utilization should be corrected according to D/1.1.2.3. The reference results are collected in tables in the background documentation to Appendix D. The background document will be available in the near future and we do not agree to take the background information into the common rules.	
203 attc	D/5.2.3.2	CI	plate breadth	2006/11/28	Figure 5.6, Note It is unclear that modification of plate breadth can be applicable provided that the web/collar plate is to be attached to the both sides of the passing stiffener or only one side of it. Please clarify the applicable of the modification of plate breadth.	The note to Figure D.5.6 states that the modification of plate breadth is applicable provided that the web is attached to the passing stiffener. Hence, it is not required that the web need to be attached to both sides of the stiffener.	Y
267	D/5.2.3.2	Question	buckling	2007/1/3	A) D/5.2.3.2 text on reason for use of figure D.5.6 implies that Fig D.5.6 is only used for cases where advanced buckling method cannot model the panel geometry and only for un-stiffened panels. This is not correct. B) In application of D/5.2.3.2 it should be clarified if the peak stress on the short edge of Fig D.5.6 is based on the value where the web attaches to the bulkhead plate OR based on the value by interpolation corresponding to the height $h_{stf}/2$. C) The application of Fig D.5.6 should also be applied to SP-M2 type.	a) Your comments are noted and agreed. We will update the Rules so that Figure D5.6 also covers panel edge restraint (as well as panel geometry) and stiffened panel (as well as un-stiffened panel). b) The idealization in Figure D.5.6 give some credit to the panel due to the "strong" edge constraints from stiffener by shortening the panel width. Stress is always taken from the centroid of each element within the panel and then take stress average accordingly to D/5.3.2.1. There is not interpolation that any particular high stress spot taken into consideration. We intend to update the Rules to make this clear. c) Yes. This will be taken care by the Rule update in a).	
704 attc	App.D Table D5.1	Question	Buckling methods in the cases 1.1,2.1-2.3 and 3.1-3.2	2008/8/29	Please clarify application of advanced buckling methods in the cases 1.1, 2.1-2.3 and 3.1-3.2 as shown in attachment .	The reply refers to index used in attachment to the question: 1.1 SP-M1 2.1 SP-M2 with secondary stiffeners perpendicular to regular stiffeners. 2.2 Yes (SP-M2) 2.3 Buckling assessment in way of openings to be carried out according to 10/3.4 3.1 SP-M1.	Y

KCID No.	Ref.	Type	Topic	Date completed	Question/CI	Answer	Attachment
890 attc	Fig D.5.1	Question	horizontal girder	2009/3/25	In case of the vessels without topside tank, Figure D.5.1 says that assessment method 2 (SP-M2) is to be applied to upper horizontal girder in double side. However, for the vessels having topside tank such as chemical tanker (please see the attached figure), assessment method 2 (SP-M2) is still to be applied to upper horizontal girder connected to slanted top side plate of inner hull? Considering the geometric shape of the upper horizontal girder is similar with lower horizontal girder connected to hopper tank side, I think it is possible to apply assessment method 1 (SP-M1) instead of method 2 (SP-M2) to the upper horizontal girder. Please clarify.	Assessment method 1, SP-M1 is to be used for the upper horizontal girder in this configuration	Y
940 attc	Table D.5.1	CI	Consideration of docking brackets for buckling assessment	2010/3/8	Docking brackets are generally attached to double bottom longitudinal girder of large oil tankers, e.g. VLCC. For the advanced buckling assessment of such a double bottom girder (please see the attached sketch); 1) should docking brackets be considered as a secondary stiffener? or a primary supporting member (PSM)? 2) in case primary support member is right, considering Note (3) in Table D.5.1, the regular stiffeners (i.e. longitudinal stiffeners on double bottom girder) should be considered as 'sniped'? Please clarify.	We would like to clarify as follows: 1) Docking bracket to be considered as a secondary stiffener 2) Regular stiffener to be considered as sniped	Y
941 attc	Table D.5.1	CI	Definition of buckling panel and buckling method for horizontal girder	2010/3/8	When defining buckling panel and buckling method for horizontal girder having special arrangement of stiffeners, such as the attached sketch ; 1) is it possible to define a buckling panel like 'A1'? 2) is it possible to define a buckling panel like 'A2' instead of 'A1'? 3) which buckling method may be applied to the panels in the sketch? Please refer to the attachment and clarify.	1) panel A1 is possible 2) panel A2 is not possible 3) 'UP-M2' for both panel A1 and B	Y

KC#203

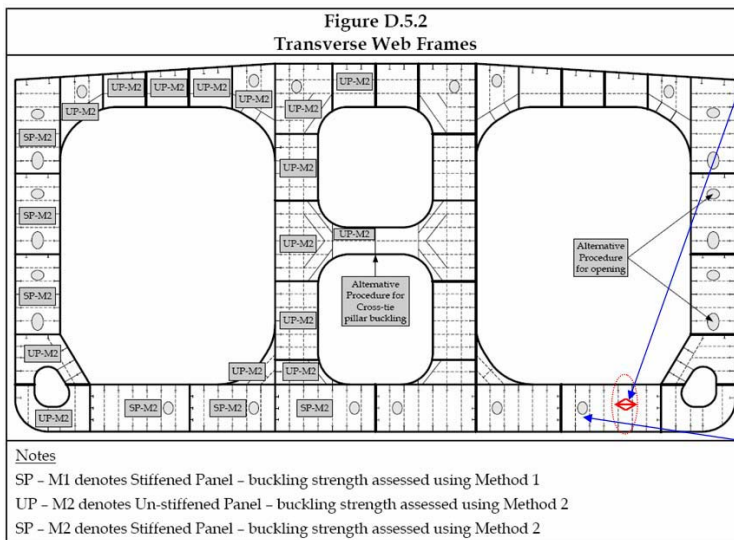


Case 1



1.1
In case of snipped stiffener is applied at side girder, which method should be applied?
SP-M1 with snipped stiffener, SP-M2 with snipped stiffener, UP-M1 or UP-M2 ?

Case 2

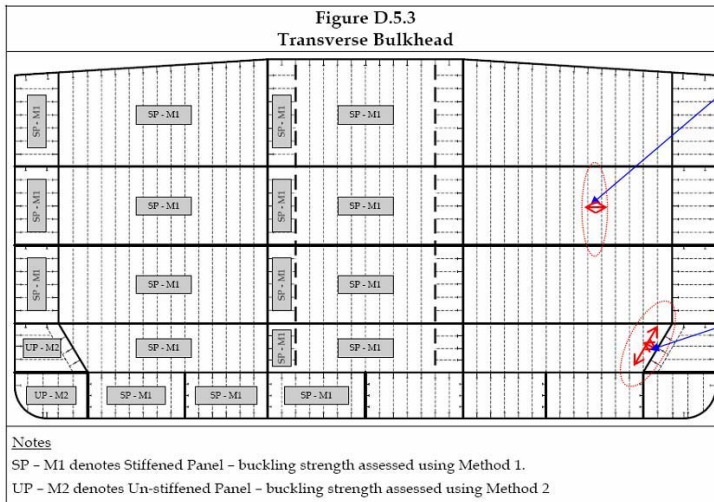


2.1
In case of additional buckling stiffener is applied at floor. Which method should be applied?

2.2
And other buckling panels at the same stiffened panel SP-M2 with stiffener number of 6 is acceptable?

2.3
If opening is not modelled and net thickness is recuded based on Table B.2.2 in App2.
How to do buckling assessment with this buckling panel?

Case 3



3.1

In case of additional buckling at Bulkhead. Which method should be applied?

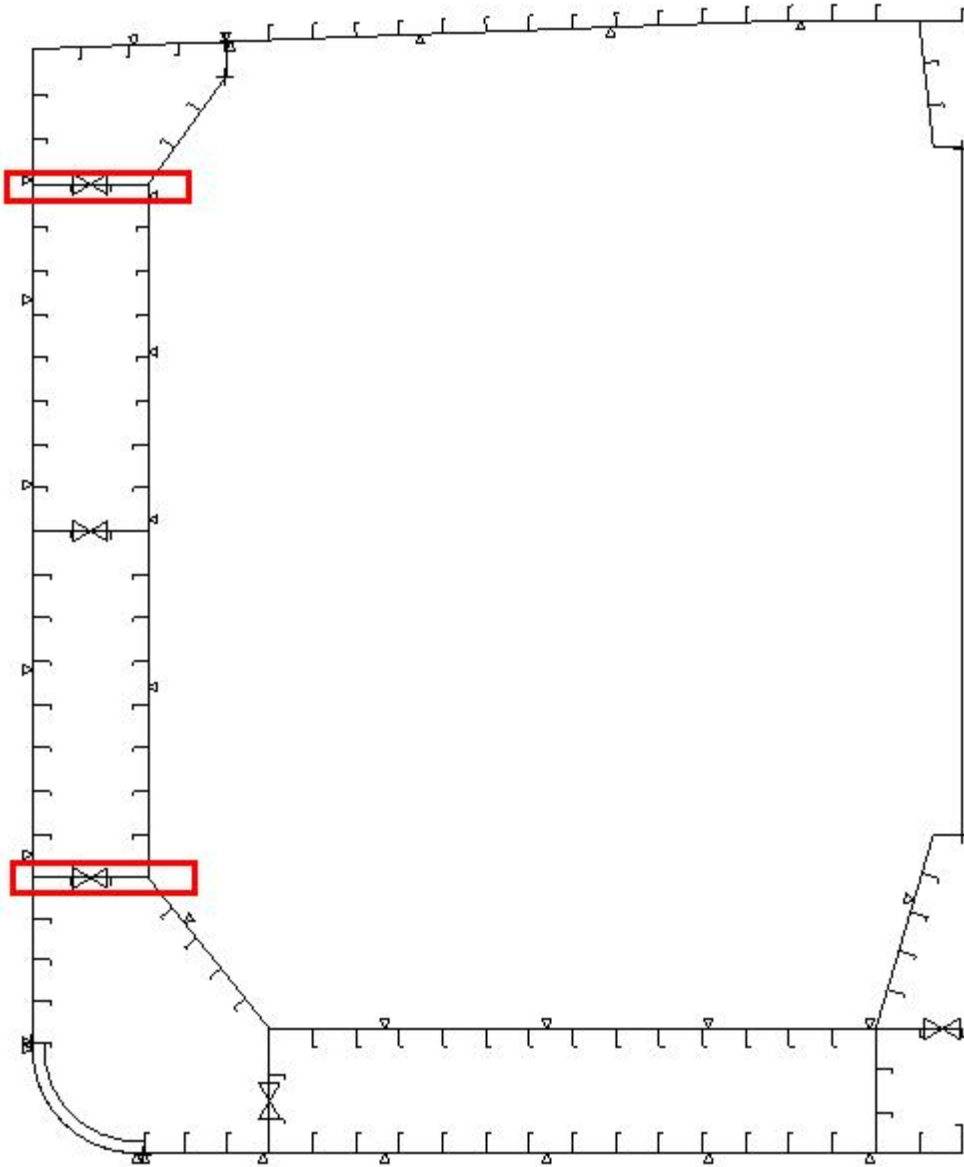
SP-M1 with secondary stiffener , UP-M2 or UP-M1 ?

3.2

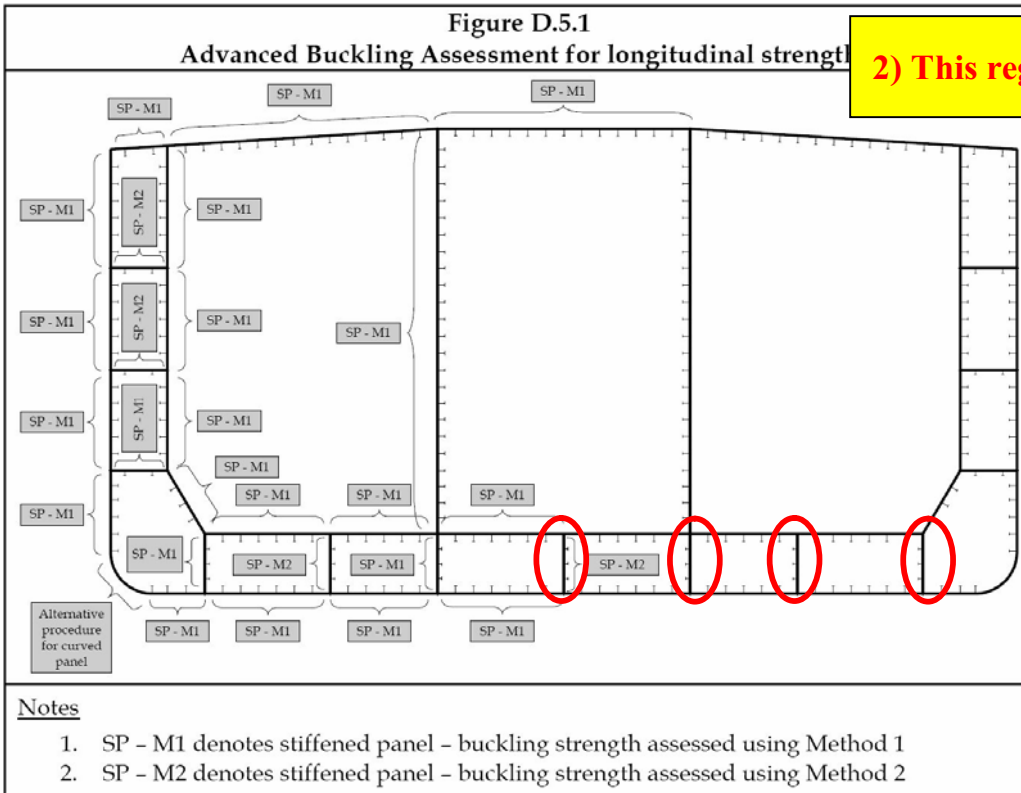
If stiffener is installed as shown, which method should be applied?

SP-M1, UP-M2 or UP-M1 ?

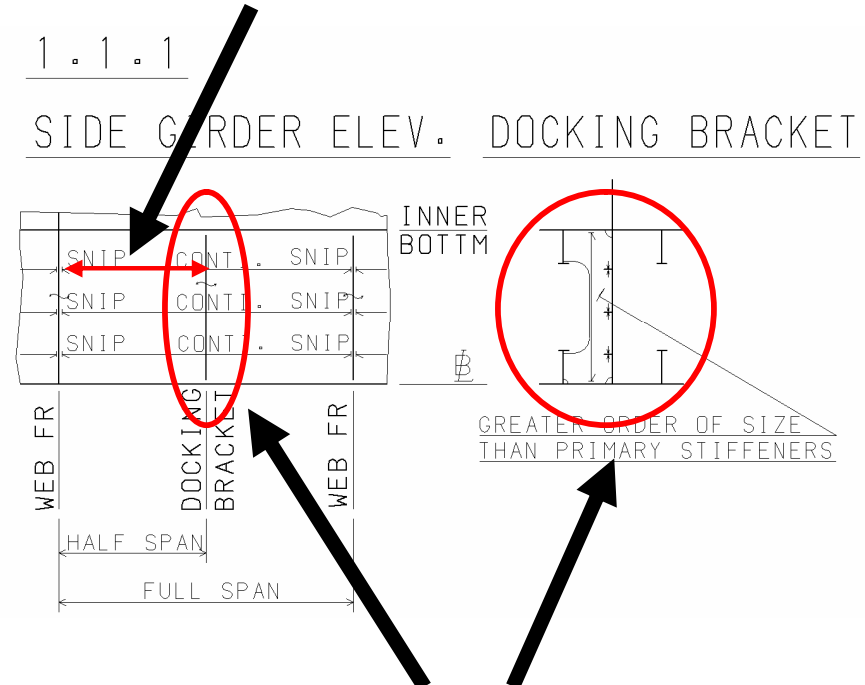
KC#890



DB GIRDER

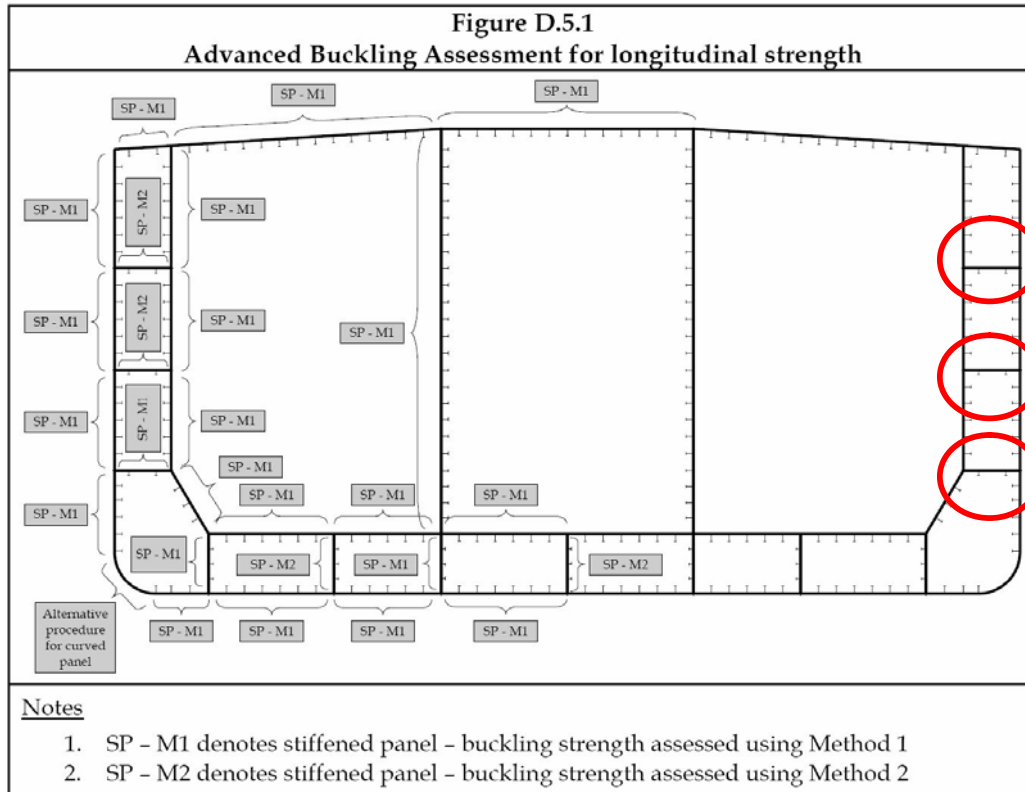


2) This regular stiffener is to be considered as 'Sniped'? or 'Continuous' ?



1) Docking bracket is 'Secondary stiffener' ? or 'Primary supporting member' ?

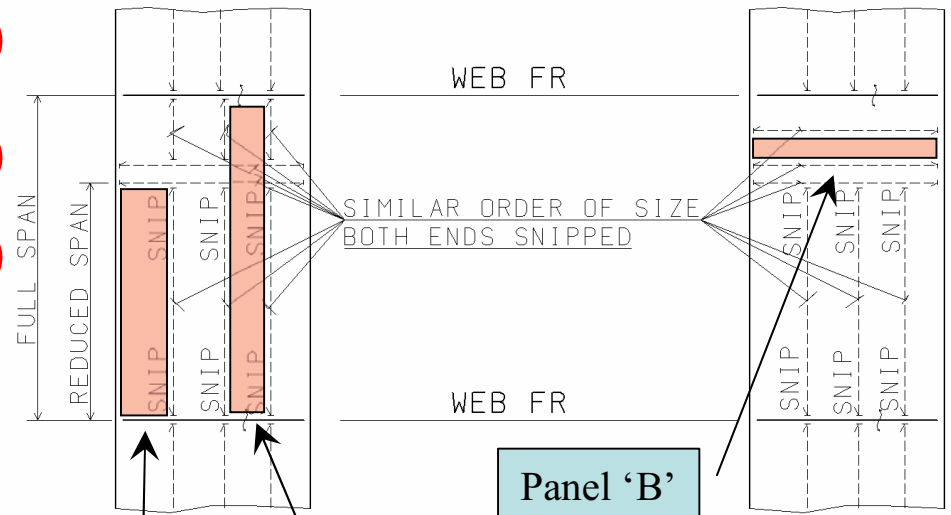
HORIZ. GIRDER



HORIZ. GIRDER PLAN

1.1.2.1

1.1.2.2



Panel 'A1'
(using reduced span)

Panel 'A2'
(using full span)

Panel 'B'

- 1) Is it OK to define a buckling panel like 'A1' ?
- 2) How about 'A2' ? Is it possible?
- 3) I think 'SP-M1' may be used for the panel 'A'(A1 or A2) and 'UP-M2' for the panel 'B'. Is it right?