



# Türk Loydu Newsletter

SEPTEMBER 1, 2010

APPENDIX - TLN 04/2010

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## Concentrated Inspection Campaign (CIC) - Tanker Damage Stability Appendix to Turk Loydu [Newsletter 04/2010](#)

*The following Appendix to TLN 04/2010 is prepared by Turk Loydu Greece Representative "Alpha Marine Services Ltd."*

The PSC regions of Paris MoU and Black Sea MoU have announced that a CIC on tanker damage stability shall take place from 1 September to 30 November 2010.

Subject to this CIC are following type of ships that must comply with relevant mandatory stability requirements:

- Oil Tankers - MARPOL Annex I, Reg. 28
- Gas Tankers - IGC Code, Chapter 2
- Chemical Tankers - IBC Code, Chapter 2

PSCO will be checking that ships are provided with an approved stability information booklet (SIB) and that the actual loading conditions, as demonstrated by Master, are found to be in compliance with the approved SIB. It is expected that small deviations between actual and allowable conditions may be accepted (e.g. within 1% variation by weight in cargo and ballast tanks and 2 cm on GM/KG); but as to this date, the acceptable tolerances given to PSC officers are not known to us.

If a PSCO is satisfied with questions no. 1-4, then it is anticipated that the ship is in compliance and the remaining questions (5-8) will not be applicable. **Please note that if the answer is NO to any of the questions no. 1 to 3, this may result in detention.** Further, it is assumed that depending on the combination of the results of the remaining questions, when applicable, there will be situations that may lead to detention.

In summary, Master has to ensure compliance by:

- Loading the ship as per approved conditions in SIB; or
- If loading conditions are deviating from those stated in the approved stability booklet, having written approval from Flag or Class; or
- Assessing loaded condition against the allowable limit curves (covering damage stability) included in the SIB; or
- Using an approved computer program able to perform damage stability calculations.

We would like to draw your attention that as the CIC will be conducted during a routine PSC inspection, the PSCO will check also other areas to his/hers discretion, including compliance with ISM code.

As loading operations are considered key shipboard operations, the company should ensure that instructions and procedures in relation to stability are included in the Safety Management System (SMS). Further, if PSCO concludes that the ship is not loaded in accordance with damage stability requirements, this may be recorded as failure of the SMS and an internal / external audit may be required.

**Questions and instructions for the CIC**

No.	Question	Instructions
1.	<b>Does the ship have an approved Stability Information Book (SIB)?</b>	<ul style="list-style-type: none"> <li>• <i>The ship shall be supplied with stability information approved by the Flag State or Class.</i></li> <li>• <i>If ship recently had changed Flag or is a newbuilding, the stability book may have preliminary approval.</i></li> <li>• <i>If ship recently had changed Flag or Class, the stability book shall be stamped by the previous Flag or Class.</i></li> <li>• <i>Absence of the approved Stability Information Book (SIB) may lead to detention.</i></li> </ul>
2.	<b>Is the SIB written in a language understood by the master?</b>	<ul style="list-style-type: none"> <li>• <i>The SIB shall at least be in English.</i></li> <li>• <i>The SIB shall be understood by Master.</i></li> <li>• <i>If Master does not understand the SIB, this may lead to detention even if other officers are able to.</i></li> </ul>
3.	<b>Does the approved Stability information cover damage conditions?</b>	<ul style="list-style-type: none"> <li>• <i>The approved SIB shall cover damage stability calculations.</i></li> <li>• <i>Damage stability compliance and limitations of approval shall be mentioned on the Approval Letter.</i></li> <li>• <i>Check that the Approval Letter is onboard.</i></li> <li>• <i>Master should ensure that damage stability compliance is documented by following:</i> <ul style="list-style-type: none"> <li>- <i>Approval letter issued by the Class.</i></li> <li>- <i>Notes on the stamped front-page of SIB.</i></li> </ul> </li> <li>• <i>Ballast or non-cargo conditions are not subject to damage stability compliance.</i></li> <li>• <i>If sufficient documentation is not provided onboard, contact Company or the Class for assistance.</i></li> <li>• <i>The ship may be detained if there is no approved damage stability information onboard.</i></li> </ul>
4.	<b>Can the master demonstrate that the ship is normally loaded in accordance with the SIB?</b>	<ul style="list-style-type: none"> <li>• <i>The ship is loaded in compliance with an approved condition from SIB.</i></li> <li>• <i>The actual loading condition may insignificantly deviate from the approved SIB condition.</i></li> <li>• <i>For guidance on acceptable deviations refer to Table 1 below (for more information please refer to IACS UR L5 - attached as separate document).</i></li> <li>• <i>If the answer to Q.4 is YES, remaining questions will be N/A.</i></li> <li>• <i>If answer to Q.4 is NO, Master must be able to verify compliance by continuing with the questionnaire.</i></li> </ul>
5.	<b>Has the master verified an alternate loading condition by written authority from flag/class?</b>	<ul style="list-style-type: none"> <li>• <i>"Alternate loading condition" means the ship is loaded with condition deviating from the approved SIB.</i></li> <li>• <i>Written authority shall be obtained from Flag / Class that alternative actual loading condition is acceptable.</i></li> </ul>

		<ul style="list-style-type: none"> <li>• <i>The Class may be contacted for assistance in preparation of the needed documentation.</i></li> <li>• <i>This documentation shall demonstrate the compliance with both intact and damage stability regulations.</i></li> <li>• <i>If the answer to Q.5 is YES, the remaining questions will be N/A.</i></li> <li>• <i>If answer to Q.5 is NO, Master must be able to verify compliance by continuing with the questionnaire.</i></li> </ul>
6.	<b>Has the master verified an alternate loading condition by assessing loaded condition against critical damage KG data, included in the approved stability information?</b>	<ul style="list-style-type: none"> <li>• <i>This may be done if approved stability information (SIB or DSB) contains "critical damage KG or GM data".</i></li> <li>• <i>"Critical damage KG or GM" data means "Maximum KG or minimum GM limit curves".</i></li> <li>• <i>Important: check that "critical damage KG or GM" data covers damage stability requirements.</i></li> <li>• <i>Master is able to demonstrate that the actual loading conditions are within the limit curves.</i></li> <li>• <i>If answer to Q.6 is YES, remaining questions will be N/A.</i></li> <li>• <i>If Master is unable to demonstrate Q.6, this may lead to PSC detention; unless Q.7 and Q.8 are YES.</i></li> <li>• <i>If answer to Q.6 is NO, Master must be able to verify compliance by continuing with the questionnaire.</i></li> </ul>
7.	<b>Is there an on-board stability computer program that includes damage stability?</b>	<ul style="list-style-type: none"> <li>• <i>Check if stability computer program is approved and certified by the Class (Loading Computer Certificate onboard).</i></li> <li>• <i>The Class Loading Computer Certificate states if program is approved for damage stability control.</i></li> <li>• <i>If not approved by the Class, check if the program is approved by another Authority.</i></li> <li>• <i>If document of program approval is not onboard, contact Company or the Class for assistance.</i></li> <li>• <i>If answer to Q.7 is NO, this may lead to detention.</i></li> <li>• <i>If answer to Q.7 is YES, then the next question Q.8 will be asked.</i></li> </ul>
8.	<b>Has the master verified an alternate loading condition by using the on-board stability computer program for carrying out damage stability checks?</b>	<ul style="list-style-type: none"> <li>• <i>Master is able to verify damage stability for loading condition by using stability computer program.</i></li> <li>• <i>The printouts showing the loading condition should be filed as proof for compliance.</i></li> <li>• <i>If answer to Q.8 is NO, this may lead to detention.</i></li> </ul>
9.	<b>Was the ship detained as a result of this CIC?</b>	

**Table 1- Acceptable tolerances  
(as per IACS Req. 2004 / rev.2.2006 / Corr.1 2006)**

<b>Hull Form Dependent</b>	
Displacement	2%
Longitudinal center of buoyancy, from AP	1% / 50 cm max
Vertical center of buoyancy	1% / 5 cm max
Transverse center of buoyancy	0.5% of B / 5 cm max
Longitudinal center of flotation, from AP	1% / 50 cm max
Moment to trim 1 cm	2%
Transverse metacentric height	1% / 5 cm max
Longitudinal metacentric height	1% / 50 cm max
Cross curves of stability	5 cm
<b>Compartment dependent</b>	
Volume or deadweight	2%
Longitudinal center of gravity, from AP	1% / 50 cm max
Vertical centre of gravity	1% / 5 cm max
Transverse center of gravity	0.5% of B / 5 cm max
Free surface moment	2%
Shifting moment	5%
Level of contents	2%
<b>Trim and stability</b>	
Draughts (forward, aft, mean)	1% / 5 cm max
GMt	1% / 5 cm max
GZ values	5% / 5 cm max
FS correction	2%
Downflooding angle	20
Equilibrium angles	10
Distance to unprotected openings or margin line from WL, if applicable	+/- 5% / 5 cm max
Areas under righting arm curve	5% or 0,0012mrad

Deviation in % = { (base value-applicant's value)/base value} \*100  
Where the "base value" may be from the approved stability information or the society's computer model.

**Abbreviations**

DSB: Damage Stability Booklet  
GM: Distance between Centre of Gravity and Metacentre  
KG: Distance from Centre of Gravity to Keel  
SIB: Stability Information Booklet

**For more information please contact:**

Mehmet AVCI  
Port State Control Specialist  
TÜRK LOYDU MARINE DIVISION  
Phone : +90-216-5813700 (PBX)  
Fax : +90-216-5813810  
E-mail : [psc@turkloydu.org](mailto:psc@turkloydu.org)  
Web : [www.turkloydu.org](http://www.turkloydu.org)

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