1. **Purpose of this Questionnaire**

The purpose of this questionnaire is:

- To gather information regarding the application of damage stability to tankers
- To ensure existing IMO instruments are enforced in a consistent manner
- To minimise risks to tankers and the seafarers who operate them
- To minimise risks to the environment from loss of marine pollutants
- To ensure non-compliant vessels are identified and brought into compliance

2. **Guidance for Completing the Questionnaire**

All questions should be answered with “yes”, “no” or “N/A” as appropriate.

The questionnaire is designed to lead the PSCO through the questions in a step by step approach to establish if and how the master has taken into consideration damage stability.

The first three questions are to establish that the ship has stability information on board that is understood by the master and relevant officers and that it includes damage stability.

Question 4 onwards is to establish if and how the master has ensured actual compliance with damage stability requirements, either by loading the ship to known conditions (as per the SIB) (Qu 4) or has written approval from flag/class to load outside these known conditions (Qu 5) or has verified these alternate conditions using critical damage KG data (Qu 6) or finally used a computer program to verify damage stability in the loaded condition (Qu 8).

Thus from question 4 onwards a “yes” answer means damage stability has been taken into account and the remaining questions can be answered as “N/A”.

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Enforcement: There may be situations where detention is warranted.

A “no” answer to Questions 1, 2 and/or 3 may result in detention as per normal PSC procedures. However a combination of “no” answers to Questions 4, 5, 6 and 8 may also result in detention.

If the PSCO has proved conclusively that the ship is not loaded in compliance with damage stability requirements in answering the questions and the ship is due to sail in that condition then detention should be considered.

However, whether or not detention is appropriate there is a failure of the on-board SMS and this should be recorded on the Report of Inspection either as a Non-conformity, Code 18 or a Major Non-conformity, code 19 and code 30 Detention and use Deficiency code 2535:

Code 2535 - Sec 7 DEVELOPMENT OF PLANS FOR SHIPBOARD OPERATIONS - Incomplete

“The Company should establish procedures for the preparation of plans and instructions, including checklists as appropriate, for key shipboard operations concerning the safety of the ship and the prevention of pollution. The various tasks involved should be defined and assigned to qualified personnel.”

3. Guidance on the Questions

Qu 1. Does the ship have an approved stability information book (SIB)?

SOLAS Chapter II-1 Part B-1 Regulation 5-1 - Stability information to be supplied to the master

“The master shall be supplied with such information satisfactory to the Administration as is necessary to enable him by rapid and simple processes to obtain accurate guidance as to the stability of the ship under varying conditions of service. A copy of the stability information shall be furnished to the Administration.”

The International Convention on Load Line 69 Annex I Regulation II/10.3.(d) & (e) states:

“(d) have such information* supplied for the use of its master as is necessary to enable the master, by rapid and simple processes, to obtain accurate guidance as to the stability of the ship under all conditions likely to be encountered in normal service; and

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(e) carry on board at all times its approved stability information together with evidence that the information has been approved by the Administration.”

The ship should be supplied with stability information approved by the flag State. This is commonly provided by one of the Classification Societies who would stamp and date the book with “[Approved on behalf of [flag State]”. In some cases the stability book may only have provisional approval, which may be because a ship has recently changed flag or is a new ship. This would be considered acceptable and the “yes” box should be ticked.

The SIB should cover intact and damage stability.

If there is no stability book on board or it does not at least have provisional approval the answer to this question is “no”.

Although it would be unlikely that there would not be a SIB, if this was the case then the PSCO should consider detention. (Use Sirenac Code 0930 “Stability/strength/loading information and instrument” Convention references as above)

Qu 2. Is the SIB written in a language understood by the master?

It is possible to find that the SIB is not in the working language of the ship, possibly due to change of flag etc. The SIB should at least be in English, French or Spanish or any other language the Administration may require.

If the master confirms that he/she can understand the SIB answer “Yes” If it is found that the SIB cannot be understood by the master the answer should be “No”. If it is found that the master does not understand the SIB but a responsible officer (eg the Chief Officer, who may have responsibility for loading) can understand the SIB the question should still be answered “No”, as the master has overall responsibility.

If the answer is “No” then the PSCO should consider detention as the SOLAS and ILL requirements as in Question 1 are not being met if the master cannot understand the SIB.

Ref. Res / Assembly / Res. A.749(18) Amended by Res.MSC.75(69) Code on Intact Stability for all types of ships covered by IMO instruments
2.1 Stability booklet

Amended by Resolution MSC.75(69) (adopted on 14 May 1998)

RECOMMENDS Governments to implement the annexed amendments to the IS Code.

"2.1.1 Stability data and associated plans should be drawn up in the working language of the ship and any other language the Administration may require. Reference is also made to the International Safety Management (ISM) Code, adopted by the Organization by resolution A.741(18). All translations of the stability booklet should be approved.

2.1.2 Each ship should be provided with a stability booklet, approved by the Administration, * which contains sufficient information to enable the master to operate the ship in compliance with the applicable requirements contained in the Code. The Administration may have additional requirements. On a mobile offshore drilling unit, the stability booklet may be referred to as an operating manual. The stability booklet may include information on longitudinal strength. This Code addresses only the stability-related contents of the booklet. "

Qu 3. Does the approved stability information cover damage conditions?

Oil Tankers:

<table>
<thead>
<tr>
<th>Title</th>
<th>MARPOL 04 Amend / I / Reg. 28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note</td>
<td>This regulation applies to every oil tanker of 150 gross tonnage and above delivered after 31 December 1979. Especially, paragraph 6 applies to oil tankers of 20,000 tonnes deadweight and above delivered on or after 6 July 1996. (This regulation enters into force on 1 January 2007)</td>
</tr>
</tbody>
</table>

Regulation 28

Subdivision and damage stability

1 Every oil tanker delivered after 31 December 1979, as defined in regulation 1.28.2, of 150 gross tonnage and above, shall comply with the subdivision and damage stability criteria as specified in paragraph 3 of this regulation, after the assumed side or bottom damage as specified in paragraph 2 of this regulation, for any operating draught reflecting actual partial or full load conditions consistent with trim and strength of the ship as well as relative densities of the cargo. Note: Paragraph 2 has not been copied here as it relates to the extent of the side and bottom damage.
**Chemical Tankers:**

<table>
<thead>
<tr>
<th>Title</th>
<th>IBC 83 IBC / II / 2.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Ships Constructed</td>
<td>From 1-7-1986 Up to 1-1-2007</td>
</tr>
</tbody>
</table>

**CHAPTER 2 - SHIP SURVIVAL CAPABILITY* AND LOCATION OF CARGO TANKS**

*Reference is made to the Guidelines for the Uniform Application of the Survival Requirements of the Bulk Chemical Code and the Gas Carrier Code.

2.1 General

2.1.1 Ships subject to the Code should survive the normal effects of flooding following assumed **hull damage** caused by some external force. In addition, to safeguard the ship and the environment, the cargo tanks of certain types of ships should be protected from penetration in the case of minor damage to the ship resulting, for example, from contact with a jetty or tug, and given a measure of protection from damage in the case of collision or stranding, by locating them at specified minimum distances inboard from the ship’s shell plating. Both the damage to be assumed and the proximity of the cargo tanks to the ship’s shell should be dependent upon the degree of hazard presented by the products to be carried.

**Gas Tankers:**

<table>
<thead>
<tr>
<th>Title</th>
<th>IGC 83/90 Amend / II / 2.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Ships Constructed</td>
<td>From 1-7-1986</td>
</tr>
</tbody>
</table>

**CHAPTER 2 - SHIP SURVIVAL CAPABILITY* AND LOCATION OF CARGO TANKS**

*Reference is made to the Guidelines for Uniform Application of the Survival Requirements of the Bulk Chemical Code and the Gas Carrier Codes, set out in the Appendix.

2.1 General

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Also, IGC and IBC Certificates of Fitness states:

"That the ship must be loaded:

.1 in accordance with the loading conditions provided in the approved loading manual, stamped and dated and signed by a responsible officer of the Administration, or of an organization recognized by the Administration (RO)

**General**

In some cases the approved SIB will include approved damage calculations which demonstrate damage stability compliance for each condition of loading if the ship suffers side or bottom damage. However, most tankers will have separate damage stability information with approved calculations for each intact condition of loading from the SIB if the ship suffers side or bottom damage.

The important criteria here is that all the "standard" loading conditions in the approved stability information should have been verified for damage stability compliance.

In some cases where there is no separate damage stability calculation and no damage results in the stability information, the only indication that the damage stability has been assessed is the fact that the stability information is stamped as complying with Marpol, which is then taken to imply that damage has been covered. A separate approved damage calculation is not a mandatory requirement.

If there is approved documentation on board which demonstrates that the loading conditions included in the SIB also meet damage stability then the answer to this question is “yes”.

If there is no approved damage stability information on board the answer will be “no”.

This means that the ship is unlikely to comply with damage stability requirements of MARPOL, for oil tankers and IGC and IBC Code for gas and chemical tankers and the PSCO should consider detention.

(Use deficiency code 1899 – Other tankers. Convention Ref: for oil tankers MARPOL ANNEX I Regulation 28(5); gas tanker IGC Code Chap 2; chemical tanker IBC Code Chap 2)
Qu 4. Can the master demonstrate that the ship is normally loaded in accordance with the SIB?

The master should be able to demonstrate that the loaded condition of the ship always complies with an approved condition of loading from the SIB and therefore has intact and damage stability approval. If this is the case answer “yes” and the rest of the questions will be “N/A” as the master is fully complying with damage stability requirements.

A sailing condition is deemed to be approved IF the filling of each cargo and ballast tank lies within 1% of the weight in the approved condition AND GMf lies within 2 cm of the approved condition GMf.

However if the answer is “no” the master needs to show how the ship is able to comply with damage stability requirements by continuing with the questionnaire.

Qu 5. Has the master verified an alternate loading condition by written authority from flag/class?

Where the master has not loaded the ship as per an approved condition in the stability book, (as per Qu 4), for gas carriers and chemical tankers it is permissible to obtain written authority from flag/class that this alternative loading condition is acceptable.

For oil tankers there is no option to obtain written authority from flag/class on alternative loading conditions. Oil tankers shall always be loaded as per approved condition in the stability book.

Gas carriers and Chemical tankers

Gas tankers and Chemical tankers are very clear on this issue and on the Certificate of Fitness it states:

“Where it is required to load the ship other than in accordance with the above instruction, then the necessary calculations to justify the proposed loading conditions should be communicated to the certifying Administration who may authorise in writing the adoption of the proposed loading conditions.”

If this option has been used and the master can show written authority the answer to this question is “yes” and the rest of the questions will be “N/A” as it has been established that the master is complying with the damage stability requirements.
If the answer is “no” the master needs to show that another acceptable alternative method to verify compliance with damage stability has been used by continuing with the questionnaire Q6.

Oil tankers

However for oil tankers this is not so clear. MARPOL Annex I Regulation 28 (1) on Subdivision and damage stability simply states:

“Every oil tanker delivered after 31 December 1979, as defined in regulation 1.28.2, of 150 gross tonnage and above, shall comply with the subdivision and damage stability criteria as specified in paragraph 3 of this regulation, after the assumed side or bottom damage as specified in paragraph 2 of this regulation, for any operating draught reflecting actual partial or full load conditions consistent with trim and strength of the ship as well as relative densities of the cargo.”

Oil tankers shall always be loaded as per approved condition in the stability book. The answer is “N/A” in case of an oil tanker. Continue with Q7.

Qu 6. Has the master verified an alternate loading condition by assessing loaded condition against critical damage KG data, included in the approved stability information?

It is also permissible for the master to assess an alternate loading condition by referring to critical damage KG or GM data in the approved Stability Information Book. If this option has been used the answer to this question is “yes” and the rest of the questions will be “N/A”.

However, the answer “yes” is also conditional upon the critical data being presented in a clear manner and with sufficient guidance to ensure it is being correctly applied. If critical data is being used outside the boundaries used to derive them, or are not used due to insufficient guidance, the answer to this question should be given as “no”.

If the answer is “no” the master needs to show that another acceptable alternative method to verify compliance has been used by continuing with the questionnaire.
Qu 7. Is there an on-board stability computer program that covers damage stability?

The most reliable method for verifying alternate loading conditions is the use of an approved stability program or loading instrument. Most loading instruments will undertake longitudinal strength calculations to Class requirements for any loading condition and most will also verify intact stability compliance. Damage stability verification is not commonly included in such instruments.

Where the master has not loaded the ship as per an approved condition in the stability book and has used an on-board stability program to verify stability compliance he/she needs to confirm the stability program covers damage stability. If the answer to this question is “yes” then move on to the next question.

If it is confirmed that the on-board stability program does not undertake damage stability then the answer is “no”. The master probably does not have an approved alternate way to assess damage stability. Question 8 should also be recorded as “no”.

If the result of the above shows that it appears that the master/owner does not take into account damage stability for the ship then they are not complying with the requirements of MARPOL, IGC Code or IGC Code. It needs to be pointed out to the master that from the information obtained from completing the questionnaire the ship is not complying with damage stability requirements.

It depends on the situation as to whether detention should be considered, if the ship is loading and it is obvious the it is going to depart without considering damage stability then the ship should be prevented from sailing until the situation is resolved, either loading to a known condition from the SIB or written approval from flag/class that the loaded condition is acceptable. Detention should be considered.

If the situation is that the ship is discharging and it hasn’t met the damage stability requirements for the previous voyage then detention is not really an option. However it should be recorded as a deficiency and followed up with flag/RO. It should also be recorded as an ISM deficiency under 1.2.3 of the Code - 1.2.3 “The safety and management system should ensure: .1 compliance with mandatory rules and regulations”

If the results of the questionnaire reveal that the master/owner regularly do not comply with damage stability then this should be recorded as a deficiency and followed up with the flag/RO as above.
Qu 8. Has the master verified an alternate loading condition by using an on-board stability computer program for carrying out stability checks?

Can the master confirm that a stability program provided to verify damage stability is being used for this purpose, by retaining a printout showing the loaded condition and confirmation of compliance. If the answer is “yes” it may be concluded that the master has taken damage stability into account.

If the answer is “no” this means that there is a means on board for verifying damage stability but the master has chosen not to verify damage stability. Detention should be considered as per Qu 7.

Qu 9 Was the ship detained as a result of this CIC?

If it is proved conclusively that the ship does not comply with the requirements of damage stability then the answer should be “Yes”. If the ship is detained for other reasons then the answer is “No”. If the ships is not detained for any reason then the answer should be “N/A”.

Abbreviations:

SIB: Approved Stability Information Booklet

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk. Carriage of chemicals in bulk is covered by regulations in SOLAS Chapter VII - Carriage of dangerous goods and MARPOL Annex II - Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk. Both Conventions require chemical tankers built after 1 July 1986 to comply with the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk.

IGC Code: The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk. Applies to gas carriers constructed on or after 1 July 1986. Gas carriers constructed before that date should comply with the requirements of the Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk or the Code for Existing Ships Carrying Liquefied Gases in Bulk.

KG: Distance from Centre of Gravity to Keel

GM: Distance between Centre of Gravity and Metacentre
Annex I

TANKER DAMAGE STABILITY BACKGROUND INFORMATION

All ships must comply with longitudinal strength, intact stability and damage stability requirements. For tankers (oil, gas, chemical) they must comply with the following mandatory instruments:

Longitudinal Strength – Load Line ILLC Annex I, Chap I, Reg 1 Strength of Hull

Intact Stability – Load Line/MARPOL. ILLC, Chap I “The Regulations also assume that where there are international requirements relating to stability or subdivision, these requirements have been complied with.”

Damage Stability – Oil Tankers MARPOL Annex I Reg 28
                       Gas Tankers IGC Code Chap 2
                       Chemical Tankers IBC Code Chap 2

Basic pre-departure checks should ensure compliance with the above.

Typical stability approval at build comprises intact and damage stability:

Approved Intact Stability Information Book (SIB)
- Contains sample intact loading conditions
- On approval, these intact loading conditions are themselves deemed to be “approved” for use
- Normally this will only demonstrate that the approved intact loading conditions will survive the extent of damage required by the applicable Convention (MARPOL) or Code (IGC, IBC) and achieve the minimum residual stability standard.
- Occasionally the damage stability submission will take the form of critical KG or GM data which are intended to permit any condition of loading (including those in the SIB) to be assessed against pre-determined tables. Where such data is provided it is essential that their correct usage should be explained, particularly in relation to any assumptions used in their preparation which must also be met when loading the vessel. Minimum tank fillings for example.

Every tanker should have approved stability information on-board which details intact loading conditions and damage calculations for different conditions of loading and should have relevant certification:

- Oil Tankers – IOPP Certificate and Form B
- Gas Tankers – Certificate of Fitness
- Chemical Tankers – Certificate of Fitness
Marpol Annex 1, reg 28(1) states:

“Every oil tanker delivered after 31 December 1979, as defined in regulation 1.28.2, of 150 gross tonnage and above, shall comply with the subdivision and damage stability criteria as specified in paragraph 3 of this regulation, after the assumed side or bottom damage as specified in paragraph 2 of this regulation, for any operating draught reflecting actual partial or full load conditions consistent with trim and strength of the ship as well as relative densities of the cargo.”

With regard to the term “any operating draught reflecting actual partial or full load conditions”, the information required should enable the damage stability to be assessed under conditions the same as or similar to those under which the ship is expected to operate.

MARPOL Annex I, Reg 28(5) states:

The master of every oil tanker to which this regulation applies and the person in charge of a non-self-propelled oil tanker to which this regulation applies shall be supplied in an approved form with:

1. information relative to loading and distribution of cargo necessary to ensure compliance with the provisions of this regulation; and
2. data on the ability of the ship to comply with damage stability criteria as determined by this regulation, including the effect of relaxations that may have been allowed under subparagraph 1.3 of this regulation.

IGC and IBC Certificates of Fitness states:

“That the ship must be loaded:

1. in accordance with the loading conditions provided in the approved loading manual, stamped and dated ............................................................. and signed by a responsible officer of the Administration, or of an organization recognized by the Administration(RO); or
2. in accordance with the loading limitations appended to this Certificate.

Where it is required to load the ship other than in accordance with the above instruction, then the necessary calculations to justify the proposed loading conditions should be communicated to the certifying Administration who may authorize in writing the adoption of the proposed loading condition.
In the majority of cases this approach is therefore conditional upon the assumption there is no significant variation in the following parameters in the loaded vessel, otherwise damage results may be adversely affected and a full check of the loading condition would be required for damage stability:

- Cargo SG
- Draught and or Trim
- Slack/Empty Cargo Tanks
- Cargo or Ballast Distribution
- Use of Deck Tanks

**Variation in Loading**

This may be of little significance on a VLCC fulfilling a long term charter where it usually carries a full cargo with the same SG in every tank, but it could prove problematic for a small coastal parcel tanker where tanks are loaded to different levels with cargoes of different SG.

It is often considered that alternate loading conditions are acceptable where these do not vary ‘significantly’ from the approved intact loading conditions, but there is no safe basis for this conclusion unless such variation is controlled. (Note “significant variation” is deemed to be IF the filling of each cargo and ballast tank lies within 1% of the weight in the approved condition AND GMf lies within 2 cm of the approved condition GMf

Depending on the shipyard the loading conditions for damage stability may or may not be comprehensive, it may be a brief document with only a few loading conditions or it may be a comprehensive document with many permutations of loading conditions.

Thus, there are specific approved loading conditions, as documented in the Stability Information Book (SIB), and if the ship is loaded outside these conditions then:

- the alternate loading condition must be authorised by the certifying Administration, or
- the alternate loading condition must be assessed against critical damage KG data included in the approved stability information, or
- the alternate loading condition must be assessed using an on-board damage stability program

In reality the first 2 bullets above would be unlikely in practice and the third bullet offers the most reliable way of ensuring compliance with damage stability if the ship is loaded outside the approved loading conditions,
There are 3 types of stability program under IACS URL5 – “Onboard Computers for Stability Calculations”, Type 1: Software calculating intact stability only (for vessels not required to meet a damage stability criterion)
Type 2: Software calculating intact stability and checking damage stability on basis of a limit curve (typically for vessels applicable to SOLAS Part B-1 damage stability calculations, etc.) or previously approved loading conditions and
Type 3: Software calculating intact stability and damage stability by direct application of preprogrammed damage cases for each loading condition (for some tankers etc.)

Only Type 2 and Type 3 programs can both be used for ensuring compliance with damage stability for each condition of loading, but Type 3 programs are more suited to verification of tank vessels.

The documentation required to demonstrate adequacy of damage stability verification on tankers could be any one of the following:

1. Permanent record that an alternate loading condition has been assessed against critical damage KG/GM data included in the approved stability information, ie a record of the checks made using a standard calculation sheet or a copy of the critical KG/GM data with the operational conditions spotted on, or

2. Written authorisation stating that the that an alternate loading condition is authorised by the certifying Administration (or an appointed certifying authority acting on its behalf), ie an endorsement that the proposed sailing condition (which is not included in the SIB) has been separately assessed and found to comply, or

3. Permanent record that the vessel is loaded in accordance with an approved loading condition, to fulfil this option there would require to be limits set by the company or the Administration within which the actual condition should lie relative to the standard condition, or

4. Permanent record that an alternate loading condition has been verified using an on-board damage stability program. ie A printout retained on board which shows that the condition has been assessed and complies. This option requires that the program in use is approved, noting that the program may calculate stability directly (by applying all statutory damages) or use critical KG/GM curves stored within the program.

4.1 There is no flag State requirement for approval of any form of stability computer program, the use of onboard computers is not a requirement. The same applies to class, the use of computers is not a requirement. However, a stability software installed onboard shall cover all stability requirements applicable to the type of ship, thus for tankers it should include damage stability.
4.2 For Classification Societies that are IACS members they should comply with IACS Unified Requirement (UR) L5 “Onboard Computers for Stability Calculations”. UR L5 requires only software approval, not hardware approval. UR L5 includes: calculation systems; types of stability software (Types 1, 2 or 3); functional requirements; acceptable tolerances; approval procedure; operation manual; installation testing; and importantly periodical testing. It is the responsibility of the master to check the accuracy of the system at each annual survey by applying at least one approved test condition.

4.3 There are 3 types of stability program under UR L5:

Type 1: Software calculating intact stability only (for vessels not required to meet a damage stability criterion)
Type 2: Software calculating intact stability and checking damage stability on basis of a limit curve (typically for vessels applicable to SOLAS Part B-1 damage stability calculations, etc.) or previously approved loading conditions and,
Type 3: Software calculating intact stability and damage stability by direct application of pre-programmed damage cases for each loading condition (for some tankers etc.)

Only Type 2 and Type 3 programs can be used for ensuring compliance with damage stability for each condition of loading, but Type 3 programs are more suited to verification of tankers.

4.4 It is common for programs to be approved for only some of the operations they perform. So it is not unusual to find a program which assesses damage to be approved only for intact stability, or for a program which verifies intact stability to be approved for longitudinal strength only.

These are the only four options available to demonstrate compliance with any form of damage stability requirement. The generally accepted method for demonstrating stability compliance on SOLAS ships is option 1, noting that this can be used to show both intact and/or damage stability compliance.

The actual statutory provisions that apply in any particular case will be stated in the original stability approval documentation and stability information, noting that these can vary (or even become non-applicable) depending upon the cargo which is being carried at the time.

The general rule is that any vessel operating under Marpol, IBC or IGC certification must be able to meet the damage requirement that applies to it and it is up to the loading officer and master to demonstrate, through one of the four options above, that this has been duly verified.
Masters and Owners Responsibilities

- SOLAS Reg 22.1 & 25-8 –(where MARPOL/IBC/IGC does not apply)...The master shall be supplied with such information satisfactory to the Administration as is necessary to enable him by rapid and simple processes to obtain accurate guidance as to the stability of the ship under varying conditions of service…"

- MARPOL – Annex 1 – Reg 28.5 “The master of every oil tanker…shall be supplied in an approved form with; information relative to loading and distribution of cargo necessary to ensure compliance with the provisions of this regulation…"

- IBC Code - 2.2.5 *(IGC Code has similar requirement)*. The master of the ship shall be supplied with a loading and stability information booklet. This booklet shall contain details of typical service and ballast conditions, provisions for evaluating other conditions of loading and a summary of the ship’s survival capabilities. In addition, the booklet shall contain sufficient information to enable the master to load and operate the ship in a safe and seaworthy manner.

Conclusion

Tankers should be loaded to ensure compliance with intact and damage stability requirements. The SIB contains some loading conditions verified to ensure that the ship will survive bottom or side damage as per the applicable requirements of either MARPOL/IBC/IGC Codes depending on the type of ship.

If the ship is loaded outside these conditions then the master needs to be able to demonstrate that the ship will still survive damage, ideally this would be proved using the printout from a stability program that includes damage.