



SUB-COMMITTEE ON STABILITY AND
LOAD LINES AND ON FISHING VESSELS
SAFETY
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Agenda item 9

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GUIDELINES FOR VERIFICATION OF DAMAGE STABILITY REQUIREMENTS FOR TANKERS AND BULK CARRIERS

Guidelines for verification of damage stability requirements for tankers

Submitted by International Chamber of Shipping (ICS)

SUMMARY

Executive summary:	This submission comments on document SLF 52/9/1. It also highlights the need for, and supports the development of, guidance for the refinement and improvement of procedures and acceptance criteria used during the flag State approval of stability data for tankers.
Strategic direction:	2
High-level action:	2.1.1
Planned output:	2.1.1.2
Action to be taken:	Paragraph 10
Related documents:	SLF 51/13/1 and SLF 52/9/1

Introduction

1 This document is submitted in accordance with paragraph 4.10.5 of the Guidelines on the organization and method of work of the Committees and their subsidiary bodies (MSC-MEPC.1/Circ.2) and provides comments on document SLF 52/9/1 by the United Kingdom *et al.* It highlights the need for, and proposes the development of, guidance for the refinement and improvement of both procedures and acceptance criteria used during the flag State approval of stability data for tankers.

General Discussion

2 Document SLF 52/9/1 states that around 31% of tank ships have been found to be “non-compliant” with IMO stability requirements. However, the document itself accepts that the definition of non-compliance that has been used does not indicate whether or not the individual loading condition itself complies with the relevant IMO criteria.

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3 The shortcomings which have been quoted by the authors of document SLF 52/9/1 during previous discussions on this matter include:

- .1 low or zero margins on stability in worst case of damage;
- .2 damage cases omitted from damage stability evaluation, particularly cases of lesser extent;
- .3 insufficient consideration given to slack or partially filled tanks;
- .4 insufficient consideration given to use of deck tanks; and
- .5 approvals based upon unrealistic conditions of loading with respect to cargo distribution.

4 These shortcomings are directly and clearly related to the stability data approval process.

5 The authors of document SLF 52/9/1 have defined non-compliance as being when the port State control officer considers that the vessel cannot carry out the relevant calculations. They accept that this is not the same as the actual loading condition being non-compliant. This is a clear indication that there has been a problem with the procedures employed, and consistency of application, when stability data is considered for approval in accordance with IMO instruments. It is essential that the stability data approval process gives due consideration to the validity of the operating envelope used to derive the data.

6 The authors of this document have reservations with regards to the mandating of specific operational solutions. However, the technical content of the guidelines in, for example, document SLF 51/13/1, could provide a useful contribution toward the development of the technical assessment content of the guidance for stability data approval, as proposed below by this current document.

7 Issues that should be considered when developing guidance on the approval of stability data are in the annex to this document.

Proposals

8 Detailed IMO guidance should be developed to help ensure consistency of standards and acceptance criteria when stability data is being considered for initial approval in accordance with IMO instruments.

9 Subsequent to such development and some experience of implementing appropriate guidance, consideration could be given to making compliance with the guidance for new ships mandatory.

Action requested of the Sub-Committee

10 The Sub-Committee is requested to note the foregoing and take action as appropriate.

ANNEX

ISSUES TO BE CONSIDERED WHEN DEVELOPING GUIDANCE ON THE APPROVAL OF STABILITY DATA FOR TANKERS

1.0 Damage cases omitted from damage stability evaluation, particularly cases of lesser extent

Guidance should include generic examples of where cases of lesser extent may result in significant failure to meet residual stability requirements, along with procedures for identifying such cases during the approval process.

2.0 Low or zero margins on stability in worst case of damage

Guidance should include tools/procedures for methodically identifying scenarios that model reasonably foreseeable worst cases of loading and damage.

3.0 Insufficient consideration given to slack or partially filled tanks

Guidance should include typical examples of cases of slack or partially filled tanks that may result in failure to meet residual stability requirements, along with procedures to assist in identifying such cases.

4.0 Insufficient consideration given to use of deck tanks

As for slack or partially filled tanks.

5.0 Approvals based upon apparently unrealistic conditions of loading with respect to cargo distribution

Guidance should address the need for designer, operator and flag to formally assess, agree and confirm that the conditions used for approval of the stability data provide a realistic operating envelope.

6.0 Variations of Cargo Density

The guidance could include a requirement that variations of cargo density should be explicitly considered within the approval process, along with a requirement that the cargo densities considered in deriving the stability data are to be clearly and prominently stated in the stability data provided on board.

7.0 Limiting Assumptions

The guidance should require that any limiting assumptions accepted during the approval process (e.g., ballast tank X should contain no less than Y tonnes of seawater) must be clearly and prominently stated in the stability data provided on board. Consideration might also be given to a requirement that such critical limitations should also be highlighted on relevant control panels, etc.