

- (ii) ship in the fully loaded arrival condition with cargo homogeneously distributed in holds and with a cargo specified in extension and weight on deck, with 10 per cent stores and fuel.

2. *Assumptions for Calculating Loading Conditions*

- (1) First line of paragraph (1), delete "and" and after 2(ii) add "3(i) and 3(ii)".
- (2) Third line of paragraph (2), after "summer load line" insert "or if intended to carry a timber deck cargo, to the summer timber load line".
- (3) First line of paragraph (4), insert after "cargo", "in holds".

Re-number (6) to (9) as (8) to (11) and add new paragraphs (6) and (7):

- (6) Where timber deck cargoes are carried, the amount of cargo and ballast should correspond to the worst service condition in which all the relevant stability criteria in Section 5 are met. In the arrival condition it should be assumed that the weight of the deck cargo has increased by 10 per cent due to water absorption.
- (7) When timber deck cargoes are carried and it is anticipated that some formation of ice will take place an allowance should be made in the arrival condition for the additional weight.

*12 October 1971
Agenda item 8*

RESOLUTION A.207(VII)

RECOMMENDATION FOR AN INTERIM SIMPLIFIED
STABILITY CRITERION FOR DECKED FISHING
VESSELS UNDER 30 METRES IN LENGTH

The Assembly,

Noting Article 16(i) of the Convention on the Inter-Governmental Maritime Consultative Organization concerning the functions of the Assembly,

Noting also Recommendation 7 of the International Conference on Safety of Life at Sea, 1960, concerning intact stability of passenger ships, cargo ships and fishing vessels,

Recalling Resolution A.168(ES.IV) concerning the Recommendation on Intact Stability of Fishing Vessels,

Recognizing the need to provide internationally a simple stability criterion for small fishing vessels for which no stability data or lines drawings are available,

Having considered the Recommendation by the Maritime Safety Committee at its twenty-second session,

Adopts the Recommendation on an Interim Simplified Stability Criterion for Decked Fishing Vessels under 30 metres in Length, the text of which appears at Annex to this Resolution,

Invites all governments concerned to take steps to give effect to the Recommendation as soon as possible,

Requests the Maritime Safety Committee to continue study on the subject,

Authorizes the Maritime Safety Committee to amend the Recommendation if necessary in the light of such studies.

ANNEX

RECOMMENDATION FOR AN INTERIM SIMPLIFIED STABILITY CRITERION FOR DECKED FISHING VESSELS UNDER 30 METRES IN LENGTH

1. For decked vessels with a length less than 30 m, the following approximate formula for the minimum metacentric height GM_{\min} (in metres) for all operating conditions should be used as the criterion:

$$GM_{\min} = 0.53 + 2B \sqrt{0.075 - 0.37 \left(\frac{f}{B}\right) + 0.82 \left(\frac{f}{B}\right)^2 - 0.014 \left(\frac{B}{D}\right) - 0.032 \left(\frac{\ell_s}{L}\right)}$$

where

- L = Length of the vessel on the waterline in maximum load condition (in metres)
- ℓ_s = Actual length of enclosed superstructure extending from side to side of the vessel (in metres)
- B = Extreme breadth of the vessel on the waterline in maximum load condition (in metres)
- D = Depth of the vessel measured vertically amidships from the base line to the top of the upper deck at side (in metres)
- f = Smallest freeboard measured vertically from the top of the upper deck at side to the actual waterline (in metres)

The formula is applicable for vessels having:

- (i) $\frac{f}{B}$ between 0.02 and 0.20;
- (ii) $\frac{\ell_s}{L}$ smaller than 0.60;
- (iii) $\frac{B}{D}$ between 1.75 and 2.15;
- (iv) sheer fore and aft at least equal to or exceeding the standard sheer prescribed in Regulation 38(8) of the International Convention on Load Lines, 1966;
- (v) height of superstructure included in the calculation not less than 1.8 m.

For ships with parameters outside of the above limits the formula should be applied with special care.

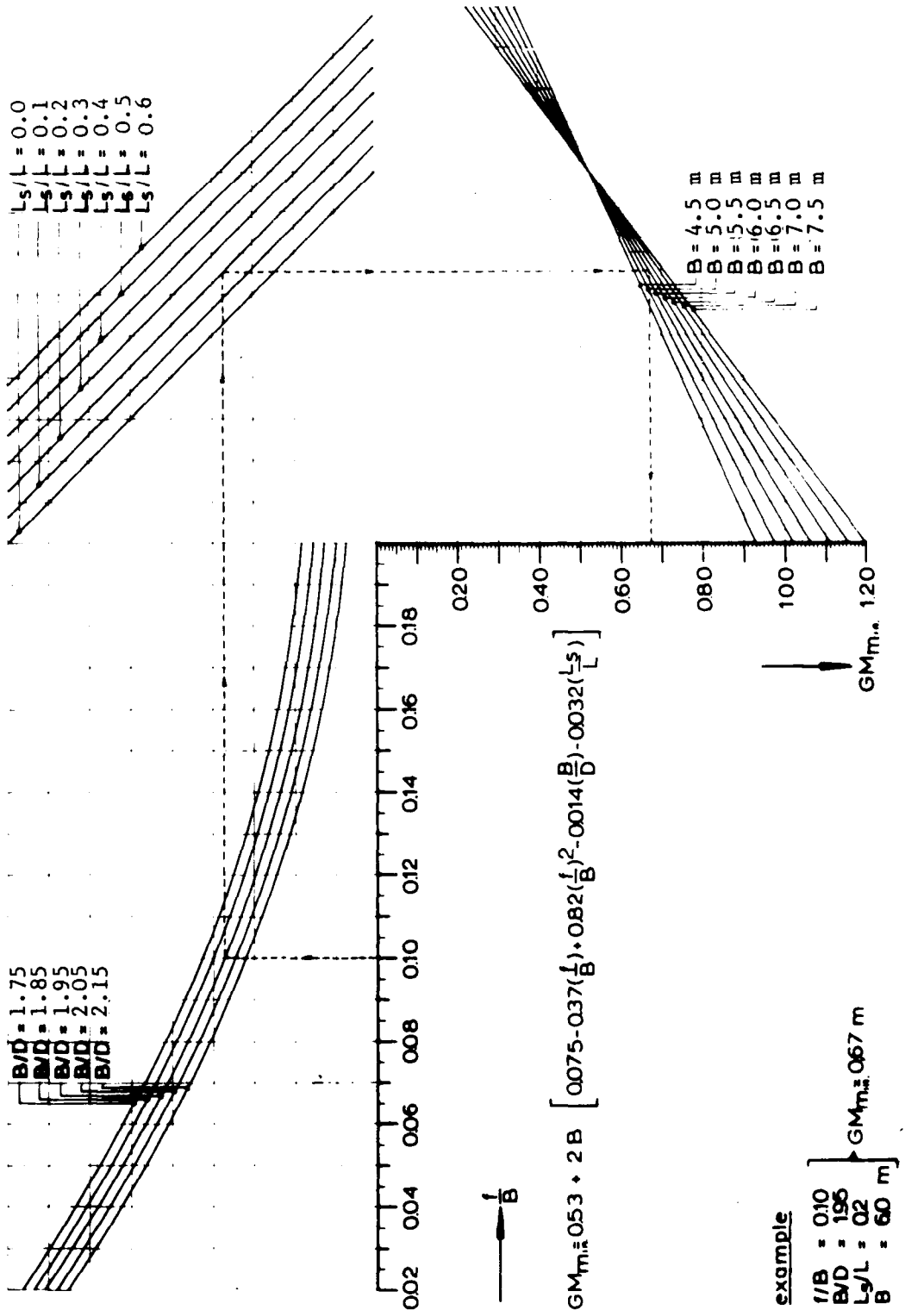
2. The above formula is not intended as a replacement for the basic IMCO criteria (Resolution A.168(ES.IV)), but is to be used only if circumstances are such that cross curves of stability, KM curve and subsequent GZ curves are not and cannot be made available for judging a particular vessel's stability.

3. The calculated value of GM_{min} * should be compared with actual GM values of the vessel in all loading conditions. If a rolling test**, an inclining experiment based on estimated displacement or another approximate method of determining the actual GM is used, a safety margin should be added to the calculated GM_{min} .

* GM_{min} may also be determined graphically using the attached table.

** The rolling test should be performed according to the "Memorandum to Administrations on an Approximate Determination of Ship's Stability by Means of the Rolling Period Tests", Appendix IV of the Recommendation on Intact Stability of Fishing Vessels (Resolution A.168(ES.IV)).

NOMOGRAM "SIMPLIFIED STABILITY CRITERIA" (fishing vessels under 30 m in length)



12 October 1971
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