## LL63

(July 1998) (Rev.1 July 2004) (Rev.2 July 2008) Treatment of steps and recesses in transverse subdivision bulkheads: IMO Res. A.320 (IX), paragraphs 12(d) and 12(e), and Regulation 27(12)(d) and (e), Revised 1988 ICLL (MSC.143(77))

Regulation 27, paragraphs 12(d) of 1988 ICLL as amended by Res. MSC.143(77) reads: "Except where otherwise required by paragraph (10)(a), the flooding shall be confined to a single compartment between adjacent transverse bulkheads, provided that the inner longitudinal boundary of the compartment is not in a position within the transverse extent of assumed damage. Transverse boundary bulkheads of wing tanks, which do not extend over the full breadth of the ship shall be assumed not to be damaged, provided that they extend beyond the transverse extent of assumed damage prescribed in subparagraph (b). If in a transverse bulkhead there are steps or recesses of not more than 3 m in length, located within the transverse extent of assumed damage as defined in subparagraph (b), such transverse bulkhead may be considered intact and the adjacent compartment may be floodable singly. If, however, within the transverse extent of assumed damage there is a step or recess of more than 3 m in length in a transverse bulkhead, the two compartments adjacent to this bulkhead shall be considered as flooded. The step formed by the afterpeak bulkhead and the afterpeak tank top shall not be regarded as a step for the purpose of this regulation."

Regulation 27, paragraphs 12(e) of 1988 ICLL as amended by Res. MSC.143(77) reads: "Where a main transverse bulkhead is located within the transverse extent of assumed damage and is stepped in way of a double bottom or side tank by more than 3 m, the double bottom or side tanks adjacent to the stepped portion of the main transverse bulkhead shall be considered as flooded simultaneously. If this side tank has openings into one or several holds, such as grain feeding holes, such hold or holds shall be considered as flooded simultaneously. Similarly, in a ship designed for the carriage of fluid cargoes, if a side tank has openings into adjacent compartments, such adjacent compartments shall be considered as empty and as being flooded simultaneously. This provision is applicable even where such openings are fitted with closing appliances, except in the case of sluice valves fitted in bulkheads between tanks and where the valves are controlled from the deck. Manhole covers with closely spaced bolts are considered equivalent to the unpierced bulkhead, except in the case of openings in topside tanks making the topside tanks common to the holds."

#### Notes:

1. This UI shall be uniformly implemented by all IACS Members and Associates to ships contracted for construction after 1 January 1999.

- 2. The "contracted for construction" date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of "contract for construction", refer to IACS Procedural Requirement (PR) No. 29.
- 3. Longitudinal distance of 3.0(m) referred in sub-item (a) and figures 1 to 4 should be replaced with 3.05(m), when this interpretation applies to Res. A.320.

Footnote: This UI is also applicable to Regulation 27(12)(d) and (e) of the 1988 Protocol.

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(cont)

### Interpretation

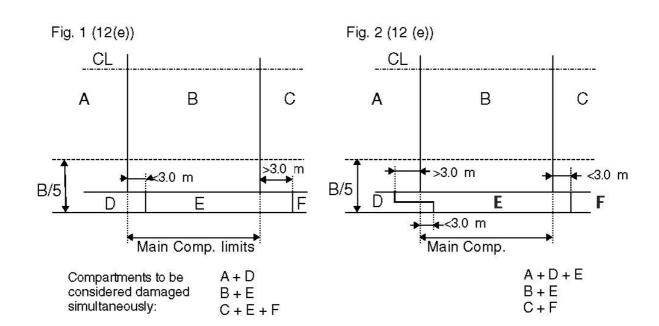
Where a transverse bulkhead forming the forward or aft limit of a wing tank or double bottom tank is not in line with the main transverse bulkhead of the adjacent in board compartment, it is considered to form a step or recess in the main transverse bulkhead.

Such a step or recess should be assumed not to be damaged provided that, either:

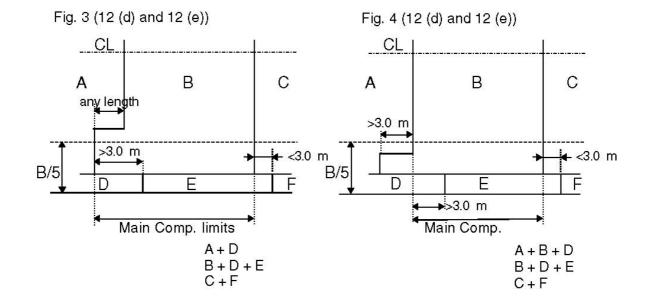
- (a) the longitudinal extent of the step or recess, measured from the plane of the main transverse bulkhead, is not more than 3.0 metres, or:
- (b) any longitudinal surface forming the step or recess is located inboard of the assumed damage.

Where, otherwise, the transverse and longitudinal bulkheads bounding a main inboard compartment are entirely in board of the assumed damage position, damage is assumed to occur between the transverse bulkheads of the adjacent wing compartment. Any step or recess in such wing tank shall be treated as indicated above.

# Representative examples to clarify treatment of steps within the transverse extent of damage







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