

(b) *Bottom damage*

	For 0.3L from the forward perpendicular of the ship	Any other part of the ship
(i) Longitudinal-extent ( $l_s$ ):	$\frac{L}{10}$	$\frac{L}{10}$ or 5 metres, whichever is less
(ii) Transverse extent ( $t_s$ ):	$\frac{B}{6}$ or 10 metres, whichever is less but not less than 5 metres.	5 metres
(iii) Vertical extent from the base line ( $v_s$ ):	$\frac{B}{15}$ or 6 metres, whichever is less	

(2) Wherever the symbols given in this Regulation appear in this Chapter, they have the meaning as defined in this Regulation.

Regulation 23  
*Hypothetical Outflow of Oil*

(1) The hypothetical outflow of oil in the case of side damage ( $O_c$ ) and bottom damage ( $O_s$ ) shall be calculated by the following formulae with respect to compartments breached by damage to all conceivable locations along the length of the ship to the extent as defined in Regulation 22 of this Annex.

(a) for side damages:

$$O_c = \sum W_i + \sum K_i C_i \quad (I)$$

b) for bottom damages:

$$O_s = \frac{1}{3} (\sum Z_i W_i + \sum Z_i C_i) \quad (II)$$

where:  $W_i$  = volume of a wing tank in cubic metres assumed to be breached by the damage as specified in Regulation 22 of this Annex;  $W_i$  for a segregated ballast tank may be taken equal to zero,

$C_i$  = volume of a centre tank in cubic metres assumed to be breached by the damage as specified in Regulation 22 of this Annex;  $C_i$  for a segregated ballast tank may be taken equal to zero,

$K_i = 1 - \frac{b_i}{t_c}$  when  $b_i$  is equal to or greater than  $t_c$ ,  $K_i$  shall be taken equal to zero,

$Z_i = 1 - \frac{h_i}{v_s}$  when  $h_i$  is equal to or greater than  $v_s$ ,  $Z_i$  shall be taken equal to zero,

$b_i$  = width of wing tank in metres under consideration measured inboard from the ship's side at right angles to the centreline at the level corresponding to the assigned summer freeboard,

$h_i$  = minimum depth of the double bottom in metres under consideration; where no double bottom is fitted  $h_i$  shall be taken equal to zero.

Whenever symbols given in this paragraph appear in this Chapter, they have the meaning as defined in this Regulation.

(2) If a void space or segregated ballast tank of a length less than  $l_c$  as defined in Regulation 22 of this Annex is located between wing oil tanks,  $O_c$  in formula (I) may be calculated on the basis of volume  $W_i$  being the actual volume of one such tank (where they are of equal