

Estimate of actual ship.
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. _____
(For London Office only).

Ship's Name "PING WO"	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 290 Breadth 46 Depth 13.5 to 2nd deck	Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons.				Date of Survey 17.7.45.
Coefficient of fineness for use with Tables .68 assumed					Surveyor's Signature _____
					Particulars of Classification Uncloned

Depth for Freeboard (D). Moulded depth 13.50. Stringer plate03. Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 13.53.	Depth correction. (a) Where D is greater than Table depth (D-Table depth) R = (b) Where D is less than Table depth (if allowed) (Table depth-D) R = (19.33-13.53) x 2.231 = -12.94. If restricted by superstructures	Round of Beam correction. Moulded Breadth (B) Standard Round of Beam = $\frac{B \times 12}{50} = \frac{11.04}{50} = 11.04$ Ship's Round of Beam = 10.00. Difference diff. 1.04 Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.04^2}{4} \times (1 - \frac{10.00}{290}) = .05$
--	--	--

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed open ...	35.00.	17.50	8'-3"	✓	17.50	Standard Height of Superstructure _____
" overhang...						" " R.Q.D. _____
R.Q.D. enclosed ...						Deduction for complete superstructure 34.67.
" overhang ...						Percentage covered $\frac{S}{L} = \frac{96.2}{100} = 96.2$
Bridge enclosed...						" " $\frac{S_1}{L} = \frac{80.5}{100} = 80.5$
" overhang aft ...						" " $\frac{E}{L} =$
" overhang forward						Percentage from Table, Line A. _____
F'cle enclosed ...	188.00	188.00	8'-3"	✓	188.00	(corrected for absence of forecastle (if required))
" overhang ...	56.00	28.00			28.00	Percentage from Table, Line B. 75.92
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than 2L (if required) ✓
Tonnage opening aft ...						Deduction = 34.67 + .7592 = -26.32
" " forward						
Total ...	279.00	233.50			233.50	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	39.00	1			42.00.	42.00	1		42.00	Mean actual sheer aft = Excess.
$\frac{1}{8}$ L from A.P. ...	17.35	4			21.00	21.00	4		84.00	Mean standard sheer aft _____
$\frac{2}{8}$ L " ...	4.29	2			14.00	14.00	2		28.00	Mean actual sheer forward = Excess.
Amidships ...	-	4			-	-	4		-	Mean standard sheer forward _____
$\frac{2}{8}$ L from F.P. ...	8.58.	2			18.00.	18.00	2		36.00	Length of enclosed superstructure forward of amidships =
$\frac{1}{8}$ L " ...	34.71.	4			39.00.	39.00	4		156.00	" " aft of " =
F.P. ...	78.00	1			74.00.	74.00	1		74.00	
Total ...				351.00					420.00	
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{69}{18} \left(.75 - \frac{481}{769} \right) = -1.03.$										
If limited on account of midship superstructure. ✓ If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓										

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 13.53. Summer freeboard = .17 Moulded draught (d) = 13.36 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = Addition for Winter North Atlantic Freeboard (if required) =	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line T = Deduction = $\frac{\Delta}{40T}$ inches =	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient Depth Correction 12.94 Deduction for superstructures 26.32 Sheer correction 1.03. Round of Beam correction... .. .05 Correction for Thickness of Deck amidships Other corrections, scantlings, etc. Summer Freeboard = 41.00
--	--	---

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc	Tropical Fresh Water Freeboard
Fresh Water Line " "	Fresh Water " "
Tropical Line " "	Tropical " "
Winter Line below " "	Winter " "
Winter North Atlantic Line " "	Winter North Atlantic " "