

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No.
(For London Office only).

35192

Ship's Name "CANTON"	Official Number 166555	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 16032 15,400 15,784	Date of Build 1938	Port of Survey Glasgow
Moulded Dimensions: Length 530.33' Breadth 73.00' Depth 46.01' to D.B.K. 37.00' to E.B.K.				Date of Survey while building.	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 29950 tons				Surveyor's Signature J.S. Thomson	
Coefficient of fineness for use with Tables .692				Particulars of Classification 100 A1 WITH FREEBOARD	
Continuation					

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 46.01	(a) Where D is greater than Table depth (D - Table depth) R = $(46.12 - 35.35) \times 3 = + 32.31''$ 10.77'	Moulded Breadth (B) 73'
Stringer plate .064'	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 17.52''$
Sheathing on exposed deck (.05)		Ship's Round of Beam = 4'
$T \left(\frac{L-S}{L} \right) = 19 \times \left(\frac{530.33 - 404.67}{530.33} \right) = .05$	If restricted by superstructures <input checked="" type="checkbox"/>	Difference = Deficient 13.52''
Depth for Freeboard (D) = 46.12		Restricted to
		Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{13.52}{4} \times .3105 = +1.05''$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure 7.50'
„ overhang ...						„ „ R.Q.D. <input checked="" type="checkbox"/>
R.Q.D. enclosed ...						Deduction for complete superstructure 42.00''
„ overhang ...						Percentage covered $\frac{S}{L} = 76.30\%$
Bridge enclosed ...	277.32	277.32	8.25'		277.32	„ $\frac{S_1}{L} = 68.95\%$
„ overhang aft ...	12.93	9.70			9.70	„ $\frac{E}{L} = 68.95\%$
„ overhang forward ...	30.42	15.21			15.21	Percentage from Table, Line A.
Fore enclosed ...	3.75	3.75	8.25'		3.75	(corrected for absence of forecastle (if required)) <input checked="" type="checkbox"/>
„ overhang ...	80.25	59.71			59.71	Percentage from Table, Line B. 61.22
Trunk aft ...						(corrected for absence of forecastle (if required))
„ forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...						Deduction = 42.00 x .6122 = - 25.71''
„ „ forward						
Total ...	404.67	365.69			365.69	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	63.03	1		63.03	57	57.00	1		57.00	Mean actual sheer aft = Deficient
$\frac{1}{2}$ L from A.P. ...	28.05	4		112.20	26	26.00	4		104.00	Mean actual sheer forward = Deficient = 89.73% of standard
$\frac{2}{3}$ L „ ...	6.93	2		13.86	7	7.00	2		14.00	Length of enclosed superstructure forward of amidships = Deficient
Amidships ...		4			0		4			„ aft of „ = Sheers
$\frac{2}{3}$ L from F.P. ...	13.87	2		27.74	12	12.00	2		24.00	
$\frac{1}{2}$ L „ ...	56.10	4		224.40	50.2	50.50	4		202.00	
F.P. ...	126.07	1		126.07	114	114.00	1		114.00	
Total ...				567.30					515.00	
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{52.30}{18} \left(\frac{75-38.15}{2L} \right) = +1.07''$										
If limited on account of midship superstructure. <input checked="" type="checkbox"/>										

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Fresh Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{692+.68}{1.36} = \frac{1.372}{1.36}$
Depth to Freeboard Deck = 46.07'	$\Delta = 21135$	Depth Correction ... 32.31
Summer freeboard = 16.71	Tons per inch immersion at summer load water line	Deduction for superstructures ... 25.71
Moulded draught (d) = 29.36	$T = 73.75$	Sheer correction ... 1.07
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <input checked="" type="checkbox"/>	Deduction = $\frac{\Delta}{40T}$ inches = 7.16 = 7''	Round of Beam correction ... 1.05
Addition for Winter North Atlantic Freeboard (if required) = <input checked="" type="checkbox"/>	as assigned by the B.O.T.	Correction for Thickness of Deck amidships60
		Other corrections, scantlings, etc. 16-8 1/2" assigned by THE B.O.T. FOR SUBDIVISION
		114.83 26.31 + 88.52
		Summer Freeboard = 200.50

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

Tropical Fresh Water Line above Centre of Disc ...	7''	Tropical Fresh Water Freeboard ...	16'-8 1/2"
Fresh Water Line „ „ ...	7''	Fresh Water „ „ ...	16'-1 1/2"
Tropical Line „ „ ...	nil	Tropical „ „ ...	16'-8 1/2"
Winter Line below „ „ ...	nil	Winter „ „ ...	16'-8 1/2"
Winter North Atlantic Line „ „ ...	<input checked="" type="checkbox"/>	Winter North Atlantic „ „ ...	16'-8 1/2"

Canton.

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Bridge Equivalent Bhd.

$$\frac{22.00 \times 14.75}{34.75} =$$

$$264.00 \checkmark$$

$$= 9.34 \checkmark$$

$$\frac{7.00 \times 1.50}{34.75} =$$

$$.30 \checkmark$$

$$34.75 \checkmark$$

$$273.65 = \text{Equivalent Bhd. aft.}$$

$$5.5 \times \frac{2}{3}$$

$$= 3.67$$

$$277.32 = \text{Equivalent length.}$$

Bridge Overhang.

$$286.00 \checkmark$$

$$273.65 \checkmark$$

$$12.35 \checkmark$$

$$.58 \checkmark$$

$$12.93 = \text{Overhang.}$$

Forecastle Overhang

$$\frac{L}{10} = 53.03 \checkmark$$

$$\text{Inclined length } 3.75 \checkmark$$

$$49.28 \times .8973 = 44.22 \checkmark$$

$$84.00 \checkmark$$

$$53.03 \checkmark$$

$$30.97 \times .50 \checkmark = \frac{15.49 \checkmark}{59.71} = \text{Equivalent Overhang}$$

Trade of ship

Passenger Cargo.

Names of sister ships

none.

Builder's name and yard number

Alexander Stephen & Sons Ltd.

N^o 557

Owners

Peninsular & Oriental Steam Navigation Co.

Fee £

no fee charged

Survey carried out concurrently with survey for B.O.T. passenger
& Safety Certificate



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Foundation