

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

19464.

Ship's Name "BRASTED"	Official Number 16634	Nationality and Port of Registry British London	Gross Tonnage 1076	Date of Build ✓	Port of Survey Lieth
Moulded Dimensions: Length 222'-0" Breadth 33'-10" Depth 14'-3" Upper D ¹² 17'-9" R.Q.D. ¹²					Date of Survey While building
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1925 tons					Surveyor's Signature Evan Edwards
Coefficient of fineness for use with Tables .7421					Particulars of Classification 1100A1 With freeboard (corresponding to a summer mld draft of 13'-4 3/8")

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth	14.25	(a) Where D is greater than Table depth (D - Table depth) R = ✓		Moulded Breadth (B)	33.83
Stringer plate	.0497			Standard Round of Beam = $\frac{B \times 12}{50} = .68$	8.12
Sheathing on exposed deck	.03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam 8 1/8"	.68 8.12
$T \left(\frac{L-S}{L} \right) =$	✓	(14.80 - 14.28) 1.704 = -.89"		Difference	NIL.
Depth for Freeboard (D) =	14.28	If restricted by superstructures YES. ✓		Restricted to	
		no allowance.		Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right) =$	✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Pop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...	156.00	156.00	3'-6"	3.50/3.813	143.20
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...	24.25	24.25	7'-0"		24.25
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	180.25	180.25			167.45

Standard Height of Superstructure	6.00'
" " R.Q.D.	3.813'
Deduction for complete superstructure	28.20'
Percentage covered $\frac{S}{L} =$	81.19 ✓
" $\frac{S_1}{L} =$	81.19 ✓
" $\frac{E}{L} =$	75.43 ✓
Percentage from Table, Line A.	69.68 ✓
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction =	28.20 x .6968 = 19.65 ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	32.20	1		32.20	24.00	24.00	1		24.00
1/4 L from A.P. ...	14.33	4		57.32	10.675	10.68	4		42.72
1/2 L " ...	3.54	2		7.08	2.64	2.64	2		5.28
Amidships ...	-	4		-	-	-	4		-
3/4 L from F.P. ...	7.08	2		14.16	9.25	9.21	2		18.42
1/4 L " ...	28.665	4		114.66	37.375	37.22	4		148.88
F.P. ...	64.40	1		64.40	84	83.64	1		83.64
Total ...				289.82					322.94

Mean actual sheer aft = Deficient
Mean standard sheer aft

Mean actual sheer forward = Excess.
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = > .1L

" " aft of " = > .1L

sheer aft.

32.20 - 1 - 32.20	24.00 - 1 - 24.00	63.96 = 74.547
14.33 - 3 - 42.99	10.68 - 3 - 32.04	
3.54 - 3 - 10.62	2.64 - 3 - 7.92	
- 1 -	- 1 -	
		63.96

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{33.12}{18} \left(\frac{.75 - .4059}{2} \right) = -.63$
If limited on account of midship superstructure. YES. NO ALLOWANCE.
AS RAISED QUARTER DECK OF DEFICIENT HEIGHT.

If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.
RAISED QUARTER
Depth to Freeboard Deck = 14.25
Summer freeboard = 4.40
Moulded draught (d) = 13.38
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.34 = 3 3/4"
Addition for Winter North Atlantic Freeboard (if required) = 5 1/4"

Deduction for Fresh Water.
Displacement in salt water at summer load water line 13.6"
 $\Delta = 2172$
Tons per inch immersion at summer load water line
 $T = 15.02$
Deduction = $\frac{\Delta}{40T}$ inches
 $3.61 = 3 1/2"$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.741 + .68}{1.36} = \frac{1.421}{1.36}$

	+	-
Depth Correction		
Deduction for superstructures		19.65
Sheer correction		
Round of Beam correction		
Correction for Thickness of Deck amidships	42.00	
Other corrections, scantlings, etc. AND TO CORRESPOND TO AN APPROVED SUMMER MOULDED DRAUGHT OF 13'-4 3/8"	2.21	
	44.21	19.65
Summer Freeboard =	52.56	

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

Tropical Fresh Water Line above Centre of Disc	6 3/4"	Tropical Fresh Water Freeboard	3 10"
Fresh Water Line	3 1/2"	Fresh Water	4'-1 1/4"
Tropical Line	3 1/4"	Tropical	4'-1 1/2"
Winter Line below	3 1/4"	Winter	4'-8"
Winter North Atlantic Line	5 1/4"	Winter North Atlantic	4'-10"

14 DEC 1937

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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.

Rpt.

SE

OP

N

D

Steering
how
F

Trade of ship General cargo.

Names of sister ships ✓

Builder's name and yard number The Burnt Island SB Co. Ltd. N° 217

Owners The Hudson Steamship Co. Ltd. - 8 Lloyd's Avenue London

Fee £ 10 : 0 : 0
To be charged with First Entry fees.

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