

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

26 JUN 1944
Hd 5519.
Lw 31/8.

Ship's Name "BURBO"	Official Number 125648	Nationality and Port of Registry British Liverpool	Gross Tonnage 2965	Date of Build 1907-12	Port of Survey Liverpool
Moulded Dimensions: Length 320.0' Breadth 52.75' Depth 22.5'					Date of Survey 19/6/44 and subsequently
Moulded displacement at moulded draught = 85 per cent. of moulded depth 7328 tons					Surveyor's Signature A. S. Jackson
Coefficient of fineness for use with Tables 16.70" Disp. = 6393 tons T.P.I. 33.85 17.10" " = 6800 " " 34.00 17.50" " = 7209 " " 34.15					Particulars of Classification 100A "Hopper Dredger."

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 22.50'	(a) Where D is greater than Table depth (D-Table depth) R = (22.84-21.33) x 2.46 = + 3.72	Moulded Breadth (B) 52.75'
Stringer plate05'	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} =$ 12.66
Sheathing on exposed deck 3 1/2" P.P.	If restricted by superstructures ✓	Ship's Round of Beam = 13
$T \left(\frac{L-S}{L} \right) =$.29		Difference -36.4
Depth for Freeboard (D) = 22.84		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{-36.4}{4} = -9.1$

DEDUCTION FOR SUPERSTRUCTURES.					Standard Height of Superstructure
Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	" " R.Q.D.
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...					

Percentage covered $\frac{S}{L} =$ **Nil**

Percentage from Table, Line A. (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 = **Nil**

SHEER CORRECTION.							
Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
... ..	42.00	1	42.00	28.00	28.00	1	28.00
from A.P. ...	18.69	4	74.76	10.66	10.66	4	42.64
" ...	4.62	2	9.24	2.66	2.66	2	5.32
amidships ...	-	4	-	-	-	4	-
from F.P. ...	9.24	2	18.48	5.52	5.52	2	11.04
" ...	37.38	4	149.52	22.12	22.12	4	88.48
... ..	84.00	1	84.00	57.00	57.00	1	57.00
Total ...			378.00				232.48

Mean actual sheer aft = **Deficient**

Mean standard sheer aft = **Deficient**

Mean actual sheer forward = **Deficient**

Mean standard sheer forward = **Deficient**

Length of enclosed superstructure forward of amidships = **Nil**

" " aft of " = **Nil**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ **$\frac{145.52 \times .75}{18} = + 6.06$**

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line $\Delta =$ 6800	Correction for coefficient $\frac{795 + 68}{1.36} = \frac{1.425}{1.36}$
Depth to Freeboard Deck = 22.84	Tons per inch immersion at summer load water line T = 34.00	Depth Correction ... 3.72
Summer freeboard = 5.12	Deduction = $\frac{\Delta}{40 T}$ inches = 5	Deduction for superstructures ... 6.06
Moulded draught (d) = 17.72		Sheer correction09
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =		Round of Beam correction09
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		9.78 .09 + 9.69
		Summer Freeboard = 70.05

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Deck :-			
Freeboard as computed under 1906 regulations	Tropical Fresh Water Line above Centre of Disc ...	Tropical Fresh Water Freeboard ...	4'-8 1/2"
General, being under particular than under particular regulations	Fresh Water Line ...	Fresh Water ...	5'-4 1/2"
	Tropical Line Not assigned ...	Tropical ...	5'-4 1/2"
	Winter Line below ...	Winter ...	5'-4 1/2"
	Winter North Atlantic Line Not assigned ...	Winter North Atlantic ...	5'-4 1/2"

Names of sister ships.....✓

Owners Mersey Docks and Harbour Board.

Lloyd's Register
Foundation