

Rpt. C.11 (Comp.).
Kassol 35866
Sutherland 36273 (Similar)
Merchant Prince 36082.

T.O. CLOSED. (W.E.)

B.T. 003421

Index. No. 32412.
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name ANTAR	Official Number 168066	Nationality and Port of Registry British, London	Gross Tonnage 5222	Date of Build 1940	Port of Survey
Moulded Dimensions: Length 421.12 Breadth 56.21 Depth 38.07					Date of Survey 15.5.41
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons					Surveyor's Signature [Signature]
Coefficient of fineness for use with Tables .756 estimated					Particulars of Classification 100A1 with freeboard

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 38.07	(a) Where D is greater than Table depth (D - Table depth) R = (38.12 - 28.08) 30 = +30.12"	Moulded Breadth (B) 56.21'
Stringer plate ... 62"	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 10.84	Standard Round of Beam = $\frac{B \times 12}{50} = 13.49"$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓	If restricted by superstructures ✓	Ship's Round of Beam = 14.00'
Depth for Freeboard (D) = 38.12		Difference Excess .51
		Restricted to ✓
		Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.51}{4} (1.0) = -.13"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
.. overhang ...					
R.Q.D. enclosed ...					
.. overhang ...					
Bridge enclosed ...					
.. overhang aft ...					
.. overhang forward ...					
Fore enclosed ...					
.. overhang ...					
Trunk aft ...					
.. forward ...					
Tonnage opening aft ...					
.. forward ...					
Total ...					

Standard Height of Superstructure **7.5'**

.. R.Q.D. **✓**

Deduction for complete superstructure **42.00**

Percentage covered $\frac{S}{L} =$ **100**

.. $\frac{S_1}{L} =$ **100**

.. $\frac{E}{L} =$ **100**

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
A.P. ...	52.11	1		52.11	59.87	59.87	1		59.87
$\frac{1}{4}$ L from A.P. ...	23.19	4		92.76	26.44	26.44	4		95.76
$\frac{2}{4}$ L ..	5.73	2		11.46	6.56	6.56	2		13.12
Amidships ...	-	4		-	-	-	4		-
$\frac{2}{4}$ L from F.P. ...	11.46	2		22.92	13.44	13.44	2		26.88
$\frac{1}{4}$ L ..	46.38	4		185.52	53.66	53.66	4		214.64
F.P. ...	104.22	1		104.22	120.00	120.00	1		120.00
Total ...				468.99					530.27

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - \frac{S}{2L}}{.75} \right) = \frac{61.28}{18} \times .75 = -2.55"$

If limited on account of midship superstructure. **Flush deck**

If limited to maximum allowance of $1\frac{1}{2}$ 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	Corrected for Flush Deck (if required) 78.17 + 6.32 = 84.49
Depth to Freeboard Deck = 38.12	$\Delta =$	Correction for coefficient 7.56 + 6.8 = 14.36 / 1.36 = 10.55
Summer freeboard = 11.39	Tons per inch immersion at summer load water line	
Moulded draught (d) = 26.73	T =	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.68 = 6 3/4"	Deduction = $\frac{\Delta}{40T}$ inches = 7"	
Addition for Winter North Atlantic Freeboard (if required) = ✓		

Depth Correction ...	...	...	...	...	...	...	...	...	...
Deduction for superstructures ...	...	...	...	...	...	...	...	...	...
Sheer correction ...	...	...	...	...	...	...	...	...	...
Round of Beam correction ...	...	...	...	...	...	...	...	...	...
Correction for Thickness of Deck amidships ...	...	...	...	...	...	...	...	...	...
Other corrections, scantlings, etc. to summer draught ...	...	...	...	...	...	...	...	...	...
Summer Freeboard = 136.75									

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

Tropical Fresh Water Line above Centre of Disc ...	13 3/4"
Fresh Water Line ..	7"
Tropical Line ..	6 3/4"
Winter Line below ..	6 3/4"
Winter North Atlantic Line ..	✓

Tropical Fresh Water Freeboard ...	11'-4 3/4"
Fresh Water ..	10'-3"
Tropical ..	10'-4 3/4"
Winter ..	10'-10"
Winter North Atlantic ..	11'-11 1/2"