

Amended after reinforcement.

Index No. _____
(For London Office only.)

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

Ship's Name SHAHIN	Official Number	Nationality and Port of Registry PANAMA	Gross Tonnage	Date of Build 1943	Port of Survey
Moulded Dimensions: Length 417.35 Breadth 56.90 Depth 37.33					Date of Survey 24.4.51
Moulded displacement at moulded draught = 85 per cent. of moulded depth 162600 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .771					Particulars of Classification +120 A1 w. flw?

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 37.33	(a) Where D is greater than Table depth $(D - \text{Table depth}) R = (37.33 - 27.82) \times 0.57 = +28.71"$	Moulded Breadth (B) 56.90
Stringer plate06	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 13.66$
Breathing 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) = 37.39		Difference .34
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.34^2}{4} = -.09"$

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 ...					

Flush Deck

Standard Height of Superstructure _____

" " R.Q.D. _____

Deduction for complete superstructure _____

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

" " $\frac{S_1}{L} =$

" " $\frac{E}{L} =$

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. ...	57.73	1	57.73	55.00	55.00	1	55.00
$\frac{1}{2}$ L from A.P. ...	23.02	4	92.08	23.25	23.25	4	93.00
$\frac{3}{8}$ L " ...	5.69	2	11.38	6.50	6.50	2	13.00
Amidships ...		4				4	
$\frac{5}{8}$ L from F.P. ...	11.38	2	22.76	11.63	11.63	2	23.26
$\frac{3}{4}$ L " ...	46.04	4	184.16	46.75	46.75	4	187.00
F.P. ...	103.47	1	103.47	105.00	105.00	1	105.00
Total ...			465.58				476.26

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{10.68}{18} = .59$

If limited on account of midship superstructure. **No - flush deck.**

Mean actual sheer aft = **> 1**

Mean standard sheer aft = **> 1**

Mean actual sheer forward = **> 1**

Mean standard sheer forward = **> 1**

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

" " aft of " = **Nil**

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)
Depth to Freeboard Deck = 37.39	$\Delta =$	Correction for coefficient $\frac{10.91 + 6.26}{1.36} = 14.51/1.36$
Summer freeboard = 9.79	Tons per inch immersion at summer load water line	Depth Correction ... 28.71
Moulded draught (d) = 27.60	T =	Deduction for superstructures ... -
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40 T}$ inches	Sheer correction ... - .45
Winter freeboard = $\frac{d}{4}$ inches = 7"	= 7 1/4 as before.	Round of Beam correction ... - .09
Addition for Winter North Atlantic Freeboard (if required) = Not required		Correction for Thickness of Deck amidships ... -
		Other corrections, scantlings, etc. 0.55
		Summer Freeboard = 117.50

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

Tropical Fresh Water Line above Centre of Disc	362 = 14 1/4"	Tropical Fresh Water Freeboard	91.95"	2984 m per
Fresh Water Line	184 = 7 1/4"	Fresh Water	81.74"	2622 m per
Tropical Line	178 = 7"	Tropical	91.24"	2802 m per
Winter Line below	178 = 7"	Winter	71.25"	2806 m per
Winter North Atlantic Line	-	Winter North Atlantic	101.42"	3162 m per