

AMENDED

Rpt. C.11 (Comp.).

Index No. **39506**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name TEH ON	Official Number	Nationality and Port of Registry CHINESE SHANGHAI	Gross Tonnage 3105	Date of Build 1922	Port of Survey
Moulded Dimensions: Length 290.00 Breadth 46.00 Depth 21.50					Date of Survey 10-7-48
Moulded displacement at moulded draught = 85 per cent. of moulded depth					Surveyor's Signature
Coefficient of fineness for use with Tables .77 (estimated)					Particulars of Classification A.1. for river & inland water service.

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ...	21.50	(a) Where D is greater than Table depth (D-Table depth) R = (21.66 - 19.33) 2.23 = + 5.20"	Moulded Breadth (B) 46.00
Stringer plate .40	.03	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{11.04"}\checkmark$
$\frac{2}{2}$ " Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = \frac{184 \times 2.5}{290 \times 12} = \mathbf{.13}$.13	If restricted by superstructures	Ship's Round of Beam = 12.00
Depth for Freeboard (D) = 21.66			Difference + .96
			Restricted to
			Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.96}{4} \times \frac{.9069}{.20} = \mathbf{+.22"}\checkmark$

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 then ...	54.00	27.00	7.54	✓	27.00
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	54.00	27.00			27.00

Standard Height of Superstructure **6.40**

" " R.Q.D. **✓**

Deduction for complete superstructure **34.67**

Percentage covered $\frac{S}{L} = \mathbf{18.62}$

" " $\frac{S_1}{L} = \mathbf{9.31}$

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

Percentage from Table, Line A. **4.66**

(corrected for absence of forecastle (if required)) **NIL**

Percentage from Table, Line B. **5.87**

(corrected for absence of forecastle (if required)) **+ .87**

Interpolation for bridge less than .2L (if required) $\frac{.0331}{.20} \times .87 = \mathbf{.14}$

Deduction = **34.67 x .004 = -.14**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	39.00	1		39.00	33.00	33.00	1		33.00
$\frac{1}{2}$ L from A.P. ...	17.355	4		69.42	12.00	12.00	4		48.00
$\frac{1}{2}$ L " ...	4.27	2		8.58	6.00	6.00	2		12.00
Amidships ...	-	4		-	-	-	4		-
$\frac{1}{2}$ L from F.P. ...	8.58	2		17.16	9.00	9.00	2		18.00
$\frac{1}{2}$ L " ...	34.71	4		138.84	30.00	30.00	4		120.00
F.P. ...	78.00	1		78.00	66.00	66.00	1		66.00
Total ...			✓	351.00				✓	297.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{54 \times (.75 - .0931)}{18} = \mathbf{+ 1.97"}\checkmark$

If limited on account of midship superstructure. **✓**

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **21.53**
Summer freeboard = **8.79**
Moulded draught (d) = **12.74**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =
Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta =$
Tons per inch immersion at summer load water line
T =

Deduction = $\frac{\Delta}{40 T}$ inches

$\frac{d}{4} = 3\frac{1}{4}"$

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient

	+	-
Depth Correction ...	5.20	-
Deduction for superstructures ...	-	.14
Sheer correction ...	1.97	-
Round of Beam correction ...	-	.22
Correction for Thickness of Deck amidships ...	-	1.56
Other corrections, scantlings, etc. corresponding to a summer moulded draught of 12'-9"	56.22	-
	63.39	1.92
Summer Freeboard =	105.50	

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

Tropical Fresh Water Line above Centre of Disc	not assigned
Fresh Water Line	3 1/4"
Tropical Line	not assigned
Winter Line below	do.
Winter North Atlantic Line	do.

Tropical Fresh Water Freeboard	not assigned
Fresh Water	8'-6 1/4"
Tropical	not assigned
Winter	do.
Winter North Atlantic	do.

8'-9 1/2"
9.7.48
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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.

Trade of ship River & inland water

Names of sister ships ✓

Builder's name and yard number New Engineering & S B Works Shanghai Yard 445

Owners San Peh Steam Navigation Co.

Fee £



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