

LOYD'S REGISTER OF SHIPPING SURVEYS FOR FREEBOARD (COMPUTATION FOR STEAMER, ~~SAILING SHIP, TANKER~~)

Received

Index No.

Govt. Copy

Owners C11

Ship's Name *Pacific Islands Shipbuilding Co Ltd.*

Official Number

Nationality and Port of Registry

Gross Tonnage

Date of Build

Yard No 237

Port of Survey

Date of Survey *18-9-58*

Surveyor's Signature

Moulded Dimensions: Length *80.00* Breadth *24.00* Depth *8.25*

Freeboard Length *80.00* *1/2* of rudderstock

Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing)

Coefficient of fineness for use with Tables *use .680*

Particulars of Classification *41 oil barge*
C.P.I.B. for service in Rangoon Harbour

DEPTH FOR FREEBOARD (D).

Moulded depth *8.25*

Stringer plate *1/4"* *.02*

Wood Sheathing on exposed deck

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = *8.27*

DEPTH CORRECTION.

(a) Where D is greater than Table depth (D-Table depth) R = $(8.27 - 5.33) \frac{80}{30} = +1.81"$

(b) Where D is less than Table depth (if allowed) (Table depth-D) R =

If restricted by superstructures

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) = *24.00*

Standard Round of Beam = $\frac{B \times 12}{50} = 5.76$

Ship's Round of Beam = *6.00*

Difference = *.24*

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.24^2}{4} \times \left(1 - \frac{.6354}{1} \right) = .04$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>29.17</i>	<i>29.17</i>	<i>7.00</i>	<i>-</i>	<i>29.17</i>
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	<i>29.17</i>	<i>29.17</i>			<i>29.17</i>

Standard Height of Superstructure *6.00*" " R.Q.D. *14"*Deduction for complete superstructure *14"*

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

" " $\frac{S_1}{L} =$ *36.46*

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

Percentage from Table, Line A. *20.49 - 5*

(corrected for absence of forecastle (if required)) *15.49*

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = *14* x *.1549* = *2.17*

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate <i>scaled</i>	Effective Ordinate	S M	Product
A.P.	<i>18.00</i>	<i>1</i>	<i>18.00</i>	<i>9.00</i>	<i>18.00</i>	<i>1</i>	<i>18.00</i>
1/4 L from A.P.	<i>8.01</i>	<i>4</i>	<i>32.04</i>	<i>5.00</i>	<i>8.01</i>	<i>4</i>	<i>32.04</i>
3/8 L	<i>1.98</i>	<i>2</i>	<i>3.96</i>	<i>1.00</i>	<i>1.98</i>	<i>2</i>	<i>3.96</i>
Amidships	<i>0</i>	<i>4</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>4</i>	<i>0</i>
3/8 L from F.P.	<i>3.96</i>	<i>2</i>	<i>7.92</i>	<i>4.00</i>	<i>4.00</i>	<i>2</i>	<i>8.00</i>
1/4 L	<i>16.02</i>	<i>4</i>	<i>64.08</i>	<i>13.00</i>	<i>13.00</i>	<i>4</i>	<i>52.00</i>
F.P.	<i>36.00</i>	<i>1</i>	<i>36.00</i>	<i>27.00</i>	<i>27.00</i>	<i>1</i>	<i>27.00</i>
Total			<i>162.00</i>				<i>141.00</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{21.00}{18} (.75 - .1823) = +.66"$

If limited on account of midship superstructure.

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

Actual Poop Height *84"*

Standard " *72"*

Excess *12"*

Mean actual sheer aft = *Excess*

Mean standard sheer aft =

Mean actual sheer forward = *Deficient*

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = *Nil*

" " aft of " = *Deficient*

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *8.27*

Summer freeboard = *.69*

Moulded draught (d) = *7.58*

Keel allowance =

Extreme draught =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction *1.81*

Deduction for superstructures *2.17*

Sheer correction *.66*

Round of Beam correction *.04*

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

2.47 *2.21* *+ .26*

Summer Freeboard = *8.26*

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

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line " "

Tropical Line " "

Winter Line below " "

Winter North Atlantic Line " "

Tropical Fresh Water Freeboard

Fresh Water " "

Tropical " "

Winter " "

Winter North Atlantic " "

BLOCK COEFF.

A.P.	6.00	1	6.00
	44.50	4	178.00
	75.00	2	150.00
	77.20	4	308.80
	76.40	2	152.80
	53.50	4	214.00
F.P.	1.50	1	1.50
			<hr/> 1011.10

$$C_B = \frac{8988}{80 \times 24 \times 8.25 \times .85} = .668$$

Shear at $\frac{L}{6}$ from A.P. = $5.00 + \frac{14.67^2}{28^2} \times 12 = 8.29$

" " $\frac{L}{3}$ " " = $1.00 + \frac{1.33^2}{28^2} \times 12 = 1.03$

$$\begin{aligned} \text{Length at side} &= 16 \times \frac{21}{12} = 28.00 \\ &+ \frac{2}{3} \times 1.75' = \frac{1.17}{29.17} \end{aligned}$$

Fee £ : :

Lloyd's Register
Foundation