

Index. No. 5212
(For London Office only)

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

Ship's Name "PAVA"	Official Number 149843	Nationality and Port of Registry British Wellington N.Z.	Gross Tonnage 1412	Date of Build 6-1927 reconstructed 1939	Port of Survey Hong Kong
Moulded Dimensions: Length 231.0' Breadth 36.5' Depth 15.0'					Date of Survey During reconstruction 1939.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 2375 tons					Surveyor's Signature J. L. Morrison
Coefficient of fineness for use with Tables .773 ✓					Particulars of Classification +100 A1 "Carrying Petroleum in Bulk."

<p>Depth for Freeboard (D).</p> <p>Moulded depth 15.00</p> <p>Req. Stringer plate04</p> <p>Sheathing on exposed deck ✓</p> <p>$T \left(\frac{L-S}{L} \right) =$</p> <p>Depth for Freeboard (D) = 15.04</p>	<p>Depth correction.</p> <p>(a) Where D is greater than Table depth (D—Table depth) R =</p> <p>(b) Where D is less than Table depth (if allowed) (Table depth—D) R =</p> <p>(15.40—15.04) × 1.777 = .64 .36'</p> <p>If restricted by superstructures × $\frac{4.5}{6} = .48$</p>	<p>Round of Beam correction.</p> <p>Moulded Breadth (B) 36.5'</p> <p>Standard Round of Beam = $\frac{B \times 12}{50} =$ 8.76</p> <p>Ship's Round of Beam = 9"</p> <p>Difference Excess .24</p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right) =$ $\frac{.24}{4} \times .2066 = -.01$</p>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Ship Poop enclosed	67.42	67.42	7'-6"	-	67.42
" " overhang... ..	✓				
pc R.Q.D. enclosed	2.00	2.00	4'-6"		2.00
" " overhang	✓				
on Bridge enclosed... ..	✓				
Th " " overhang aft	✓				
T " " overhang forward	✓				
" " " " wings 4	38.65	38.64	7'-0"		38.64
St " " overhang... ..	✓				
Trunk aft	76.02	75.23	4'-6"	x 4-5/6	56.42
N " " forward... ..	✓				
a " " " " opening aft	✓				
of th " " " " forward	✓				
Total	108.06	183.29			104.48

Standard Height of Superstructure..... 6.00'

" " R.Q.D. 3.873'

Deduction for complete superstructure 29.10"

Percentage covered $\frac{S}{L} = 46.77$

" " $\frac{S_1}{L} = 79.34$

" " $\frac{E}{L} = 71.20$

Percentage from Table, Line A. 64.48
(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 = $29.10 \times .6448 = 18.76"$

SHEER CORRECTION.

Station	Standard Ordnate	S M	Product	Actual Ordnate	Effective Ordnate	S M	Product
P. ...	33.10	1	33.10	30.0	30.0	1	30.0
$\frac{1}{8}$ L from A.P. ...	14.73	4	58.92	10.5	10.5	4	42.0
$\frac{3}{8}$ L " ...	3.64	2	7.28	1.75	1.75	2	3.5
amidships ...	-	4	-	0	-	4	-
$\frac{1}{8}$ L from F.P. ...	7.28	2	14.56	3.0	3.0	2	6.0
L " ...	29.46	4	117.84	16.5	16.5	4	66.0
F.P. ...	66.20	1	66.20	45.5	45.5	1	45.5
Total ...			297.90				193.0

$$\left. \begin{array}{l} \frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} = \\ \frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} = \end{array} \right\} \text{Deficient}$$

Length of enclosed superstructure forward of amidships =
 " " aft of " =

Entd. Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{8}{21} \right) = \frac{104.9}{18} \left(.75 - \frac{.2338}{.5162} \right) = +3.01''$ If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

5,32.

5,32.

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

		Ft.
Depth to Freeboard Deck	=	15.04
Summer freeboard	=	1.21
Moulded draught (d)	=	13.83

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $3.46 = 3 \frac{1}{2}$ "

Adjustment for Winter North Atlantic Freeboard (if required) = $3.46 + 2 = 5.46 = 5 \frac{1}{2}$ "

Deduction for Fresh Water.

Displacement in salt water at
summer load water line
 $\Delta = 2685 \text{ Tons}$

Tons per inch immersion at
summer load water line
 $T = 17.13$

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

$$= 3.92$$

$$= 4''$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.773 + .68}{1.36} = \frac{1.453}{1.36}$

	+	-	
Depth Correction	-	48	<div style="text-align: right;"> <i>Handwritten:</i> 48.16 22.1 </div>
Deduction for superstructures	-	18.76	
Sheer correction	3.01	-	
Round of Beam correction	-	01	
Correction for Thickness of Deck amidships	-	-	
Other corrections, scantlings, etc.	-	-	
	3.01	19.25	- 16.24

Summer Freeboard = 14.40

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

TIDEBOARD friendships from Centre of Disc			
Tropical Fresh Water Line above Centre of Disc	7 1/2"
Fresh Water Line	"	"	4"
Tropical Line	"	"	3 1/2"
Winter Line below	"	"	3 1/2"
Winter North Atlantic Line	"	"	5 1/2"

Tropical Fresh Water Freeboard	...
Fresh Water	"
Tropical	"
Winter	"
Winter North Atlantic	"

Pawa

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.

SURVEYS FOR FREEBOARD

COMPUTATION FOR STEAMER, SAILING SHIP, TANKER

File

37.25

$$\frac{4 \times 5.75}{16.50} = \frac{1.39}{38.64}$$

$$\text{Trunk. } 11 \times \frac{21.67 + 36.5}{2 \times 36.5} = 11 \times \frac{29.08}{36.5} = 8.77$$

$$(109.33 + 4 - 1.39) \times \frac{21.67}{36.5} = 111.94 \times \frac{21.67}{36.5} = \frac{66.46}{75.23}$$

Trade of ship: New Zealand Coast

Names of sister ships: —

Builder's name and yard number: Harland & Wolff Ltd Yard No 750 g

Owners: The Shell Co. of New Zealand Ltd, Wellington, N.Z.

Fee £ 15-0-0



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Foundation