

Rpt. C.11.

21 OCT 1932

Index. No. 32146
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having FORECASTLE AND POOP

Port of Survey WELLINGTON

(Type of Superstructures.)

Date of Survey 23/8/32 AND 1/9/32.

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

M.V. "PAUA"

BRITISH
WELLINGTON (N.Z.)

149843

1259.66

6-1927

Name of Surveyor

W. J. J. J.

Moulded Dimensions: Length 205'-0"

Breadth 36'-8"

Depth 15'-0"

Moulded displacement at moulded draught = 85 per cent. of moulded depth

2035

tons

Coefficient of fineness for use with Tables

.746

Particulars of Classification LLOYDS +100 AL

Sailing PETROLEUM IN BULK.

S.S. No. 107-31

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	15.00	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	36.50
Stringer plate	.04	(15.04 - 13.67) 1.577 = + 2.16		Standard Round of Beam = $\frac{B \times 12}{50}$	8.76
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	9"
$T \left(\frac{L-S}{L} \right) =$				Difference	.24
Depth for Freeboard (D) =	15.04	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$= \frac{.24}{4} \left(1 - \frac{.8184}{1.816} \right) = -.01$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	67.42	67.42	7'-6"		67.42
" overhang ...	NIL				
R.Q.D. enclosed ...	2.00	2.00	4'-6"		2.00
" overhang ...					
Bridge enclosed ...	NIL				
" overhang aft ...	NIL				
" overhang forward ...	NIL				
Fore enclosed ...	40.75	38.47	7'-0"		38.47
" overhang ...	NIL				
Trunk ...	94.83	59.88	4'-0"		59.88
" forward ...					
Tonnage opening aft ...	107.89				
" forward ...					
Total ...	205.00	167.77			167.77

Standard Height of Superstructure	6'-0"
" " R.Q.D.	3.700
Deduction for complete superstructure	26.50
Percentage covered $\frac{S}{L} =$	52.63
" " $\frac{S_1}{L} =$	81.84
" " $\frac{E}{L} =$	72.10
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	65.58
Interpolation for bridge less than 2L (if required)	TANKER.
Deduction = $26.50 \times .6558$	17.38

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	30.50 32"	1		30.50	32.00	32.00	1		32.00
1/8 L from A.P. ...	13.57 16 1/4"	4		54.28	12.84	12.84	4		51.36
1/2 L ...	3.36	2		6.72	3.21	3.21	2		6.42
Amidships ...		4		-	-	-	4		-
3/4 L from F.P. ...	6.71	2		13.42	4.94	4.94	2		9.88
1/8 L ...	27.15 25"	4		108.60	19.75	19.75	4		79.00
F.P. ...	61.00 45"	1		61.00	45.00	45.00	1		45.00
Total ...				274.52					223.66

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{50.86}{18} \left(.75 - \frac{2631}{4869} \right) = +1.38$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 15.04

Summer freeboard = 3.2

Moulded draught (d) = 14.70

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 3.58 = 3 1/2"

Addition for Winter North Atlantic Freeboard (if required) = 2.05

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 2275$

Tons per inch immersion at summer load water line

T = 14.9

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

= 3.85 = 3 3/4"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

746 + 68 1.426

1.36 1.36

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

23.90

25.06

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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 " " ...

11 1/4" 0'-10 1/2"

11 1/4" 0'-3 1/2"

11 1/4" 0'-6 3/4"

11 1/4" 0'-4 1/2"

11 1/4" 2'-2 1/2"

11 1/4" 1'-4"

25 OCT 1932

5m, 3.32.

MARKING FORM
118 SEP 1935
RECEIVEDMARKING FORM
118 FEB 1933
RECEIVED

M.V. PAUA

Particulars of fiddley, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles :—

N/L

Particulars of Companionways:—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—

Particulars of Gangway Cargo and Coaling Ports:—

NIL.

Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles:—

Particulars of Guard Rails :—

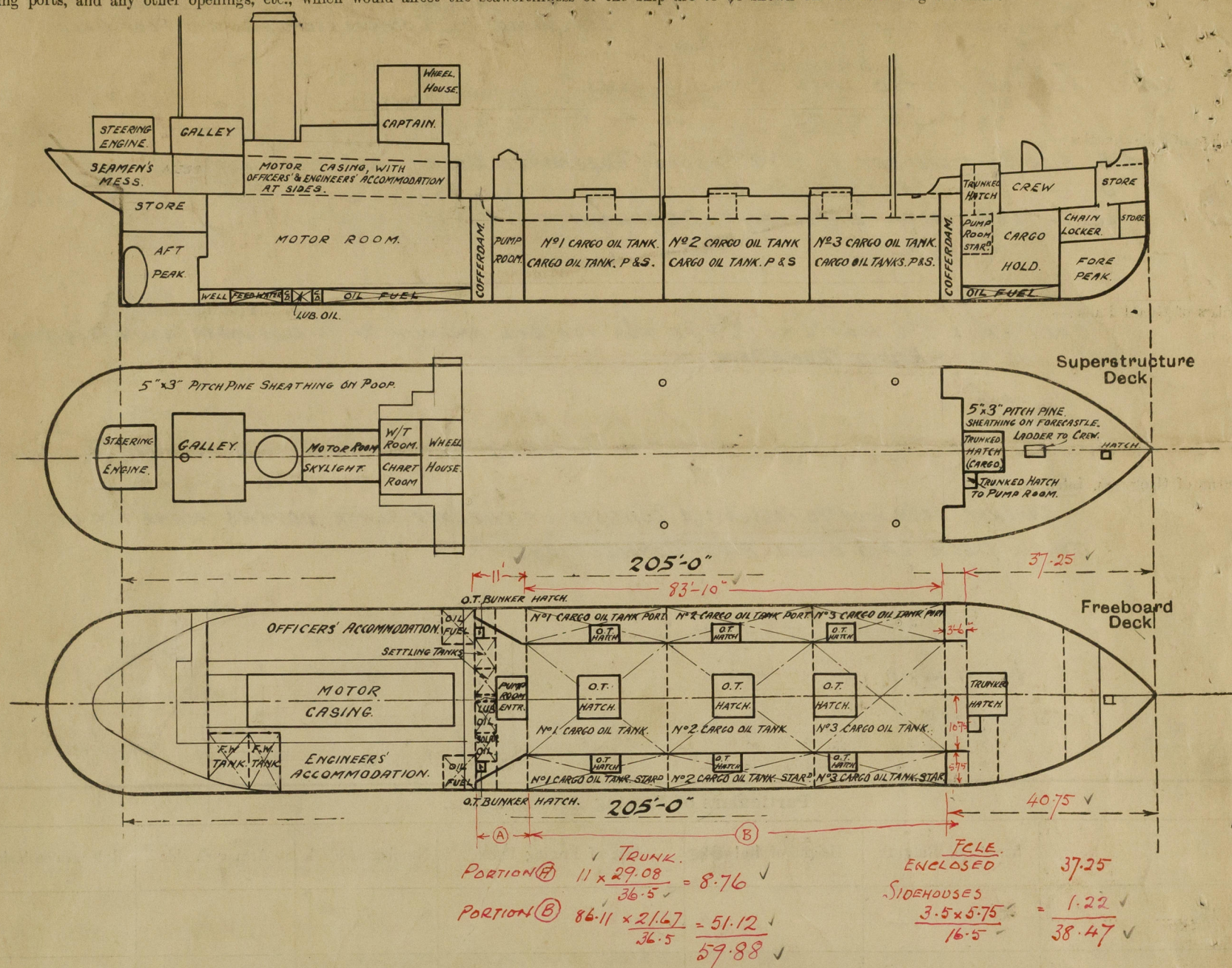
Particulars of Gangways, Lifelines, etc. :—

Particulars of Freeing Arrangements.

Particulars of Superstructures, Trunks, Casings, Deckhouses.Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	on RAD	2 TEAK WOOD DOORS EACH 5'-3" x 2'-3" OPERABLE FROM BOTH SIDES AND WITH INDEPENDENT STEEL STORM-PROOF DOORS HINGED AND FITTED WITH 2-WAY CLEATS PROVIDED OVER EACH TEAK DOOR.
Raised Quarter Deck Bulkhead		no openings
Bridge, After Bulkhead	...	NIL ✓
Bridge, Forward Bulkhead	...	NIL ✓
Forecastle Bulkhead	...	NO OPENINGS (FOREHOLD) ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks	...	PUMP ROOM DOOR: 5'-3" x 2'-4" HINGED WATER-TIGHT DOOR OPERABLE FROM OUTSIDE ONLY, AND FITTED WITH 5" WING NUTS AND 1 CLAMP.
Exposed Machinery Casings on Superstructure Decks	...	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	ALL UNDER POOR.
Deckhouses on Flush Deck Ships	...	NONE.

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo, and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

STEEL DECK HOUSES INCLUDE SIDE HOUSE PROTECTING ENTRANCE TO CREW'S QUARTERS ON FORECASTLE, ALSO GALLEY AND STEERING ENGINE AND GEAR SHELTER ON POOP. ✓
 ALL ARE EFFICIENT STEEL HOUSES WITH ENTRANCES AS FOLLOWS:—
 TO CREW'S QUARTERS ON FORECASTLE: 5'-0" x 3'-3" DOUBLE TEAK DOORS WITH 15" SILL. ✓
 TO GALLEY: 5'-6" x 2'-2" DOUBLE STEEL DOOR WITH 15½" SILL. ✓
 TO STEERING ENGINE. 5'-6" x 2'-2" DOUBLE STEEL DOOR WITH 15½" SILL. ✓

SURVEYED AFLOAT AT BURNHAM WHARF & IN JUBILEE FLOATING DOCK. WELLINGTON.

Builder's name and yard number HARLAND AND WOLFF LTD. GOVAN, GLASGOW.

YARD NO 750 G.

Names of sister ships —

Owners MESSRS. THE SHELL COMPANY OF NEW ZEALAND LIMITED. A.M.P. BUILDING, WELLINGTON, N.Z.

Fee £ 8 : 10 : —

Received by me —



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Foundation