

WRECK SECTION
Lloyd's Register of Shipping
SURVEYS FOR FREEBOARD.Index. No. 32518
(For London Office only.)

No. 558.

GLASGOW REPORT No. 52532

Computation of Freeboard for Steamer, Sailing Ship, Tanker Motor Vessel
having Complete Superstructure with tonnage opening

Port of Survey Glasgow

Date of Survey 25th MAY 1932

Name of Surveyor H. J. Pyle

Particulars of Classification +100A1
With Freeboard

(Type of Superstructures.)

Boat 49-528

Ship's Name

PACIFIC ENTERPRISE

Nationality and Port of Registry

British
London

Official Number

149949

Gross Tonnage

6736

Date of Build

1927.12

Moulded Dimensions: Length 435.0 ✓ Breadth 60.0 ✓ Depth 32'-0 3/4" ✓

Moulded displacement at moulded draught = 85 per cent. of moulded depth 27.2 ft = 15310 tons

Coefficient of fineness for use with Tables .753

Depth for Freeboard (D)

Moulded depth 32.06

Stringer plate 44

Sheathing on exposed deck

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

Depth for Freeboard (D) = 32.10

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

(32.10 - 29.00) 3 = + 9.30" ✓

(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) 60.0

Standard Round of Beam = $\frac{B \times 12}{50} = 14.4$

Ship's Round of Beam = 14"

Difference .40"

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.40}{4} \times .0058 = \text{nil.}$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	25.33	25.33	10' 0"	✓	25.33
" overhang875	.44			.44
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	404.0	404.00	10' 0"	✓	404.00
" overhang aft295	.22			.22
" overhang forward ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	4.5	2.50 = 1/2 diff	10' 0"	✓	2.50
" " forward ...					
Total ...	435.00	432.49			432.49

Standard Height of Superstructure 7.50'

" " R.Q.D. ✓

Deduction for complete superstructure 42.00"

Percentage covered $\frac{S}{L} = 100\%$ ✓" " $\frac{S_1}{L} = 99.42\%$ ✓" " $\frac{E}{L} = 99.42\%$ ✓

Percentage from Table, Line A. 99.28% ✓

(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 = 42.00 × .9928 = - 41.70" ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	53.50	1		53.50	46"	46.00	1		76.00
1/4 L from A.P. ...	23.81	4		95.24	26"	26.14	4		135.28
2/4 L " ...	5.89	2		11.78	5"	5.03	2		16.72
Amidships ...	✓	4		✓	✓	✓	4		✓
3/4 L from F.P. ...	11.78	2		23.56	10"	10.07	2		26.84
1/4 L " ...	47.62	4		190.48	40"	40.28	4		217.16
F.P. ...	107.00	1		107.00	92"	92.00	1		122.00
Total ...				481.56					594.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{112.44}{18} \times (.75 - .50) = - 1.56"$ ✓

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 = 32.10

Summer freeboard = 4.42

Moulded draught (d) = 27.68

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 6.92 = 7" ✓

Addition for Winter North Atlantic Freeboard (if

required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 15751$

Tons per inch immersion at summer load water line

 $T = 54.03$ ✓Deduction = $\frac{\Delta}{40 T}$ inches

= 7.29

= 7 1/4" ✓

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.753 + .68}{1.36} = 1.433$

1.36 1.36

Depth Correction ... 9.30 ✓

Deduction for superstructures ... 41.70 ✓

Sheer correction ... 1.56 ✓

Round of Beam correction ... ✓

Correction for Thickness of Deck amidships ... ✓

Other corrections, scantlings, etc. ... ✓

+ -

9.30 41.70

✓ 1.56

✓

✓

✓

9.30 43.26 - 33.96

Summer Freeboard = 52.91

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

Tropical Fresh Water Line above Centre of Disc 14 1/4"

Fresh Water Line " " 7 1/4"

Tropical Line " " 7"

Winter Line below " " 7"

Winter North Atlantic Line " " ✓

Tropical Fresh Water Freeboard ... 4'-5"

Fresh Water " " 3'-2 3/4"

Tropical " " 3'-9 3/4"

Winter " " 3'-10"

Winter North Atlantic " " 5'-0"

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

None. ✓

Particulars of Scuppers and Sanitary Discharge Pipes:— All sanitary discharges are from Houses on Super. Dk. are led overboard just above or below freeboard deck with gunmetal storm valves at ship's side. ✓
 6-3/2" dia. scuppers in Super. Tween Dk. 1-3/2" dia scupper in tonnage opening, 1-3/2" dia scupper in crew space and 1-3/2" dia scupper in steering gear space on p.s. sides of vessel led overboard below freeboard dk. with gunmetal storm valves at ship's side. ✓
 7 Collinson scuppers on p.s. sides of superstructure deck. ✓

Particulars of Side Scuttles:— No side scuttles below Freeboard Deck. ✓
 Side scuttles to crew space aft in Super. Tween Decks fitted with hinged deadlights ✓
 Side scuttles to file fitted with hinged deadlights. File front lights not fitted with deadlights. ✓
 All scuttles of substantial construction ✓

Particulars of Guard Rails:—

Guard rails of File Dk. 3'-6" high with 3 rods and Stanchions spaced 4'-6" apart. ✓
 Guard rails on Super. Dk aft 3'-6" high with 3 rods and Stanchions spaced 4'-6" apart. ✓

Particulars of Gangways, Lifelines, etc.:—

Storm rail along side of midship Deckhouse ✓

Particulars of Freeing Arrangements.

	Length of Bulwark on Super Deck.	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Vehn ...	390' 0" abaft File front	3'-6"	each side 4'-8" x 1'-6" 4 " " 3'-3" x 1'-6"	10	61.44 sq. ft. ✓	39.00 ✓
Forward Well Tonnage Opening			each side 2'-1/2" x 1'-2"	1	2.46 sq. ft. ✓	✓
State position of each freeing port ... } After Well:— 3 aft of midship Deckhouse } 4 almost midship deckhouse (11" above deck) ✓ (F. and A. position and height above deck edge) } Forward Well:— 3 fwd " } State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— 3x3" angle fore and aft ✓ Additional area where sheer is less than standard. ✓ Shutter fitted to tonnage opening port. ✓						

Particulars of Superstructures, Trunks, Casings, Deckhouses.

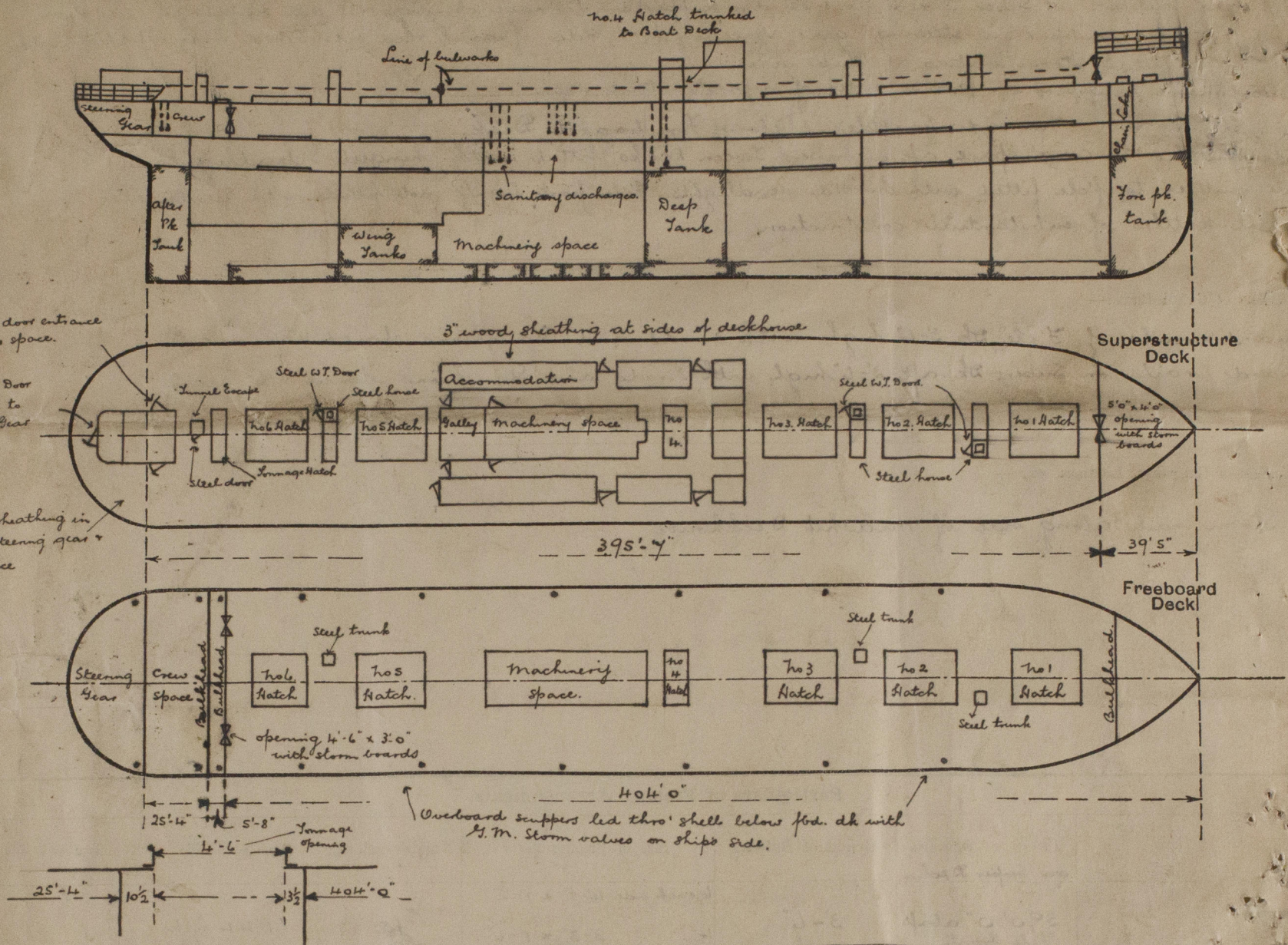
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead No 12. Frame } Tonnage	30 ✓	26 ✓	6 x 3 x 38 A ✓ 6 x 3 x 46 A ✓	30" ✓ 36" ✓	Lapped to Foundation Bars ✓	None ✓	None ✓	10' 0" ✓
Raised Quarter Deck Bulkhead } Upper								
Bridge, After Bulkhead No 14 } ...	30 ✓	26 ✓	6 x 3 x 38 A ✓	30" ✓	Lapped to Foundation bars ✓	4'-6" x 3'-0" ✓	18" ✓	10' 0" ✓
Bridge, Forward Bulkhead ...								
Forecastle Bulkhead ...		25 ✓	3 x 2 1/2 x 30 A ✓	30" to 33" ✓	None ✓	5' 0" x 4' 0" ✓	15" ✓	8' 0" ✓
Trunk, Aft Deckhouse aft ...	26 ✓	24 ✓	3 x 2 1/2 x 30 A ✓	32" with internal bulkheads	Lapped to top & bottom bars ✓	5'-5" x 2'-1" p.s. ✓ 4'-10" x 2'-6" at after end	18" ✓	7'-6" ✓
Trunk, Forward ...								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...								
Exposed Machinery Casings on Superstructure Decks ...								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	40 ✓	32 ✓	5 x 3 x 48 A with 2-3 x 3 x 40 A between	34" ✓ 18" to 30"	Bracketed at top 3x5" lugs	None ✓	✓	10' 0" ✓
Deckhouses on Flush Deck Ships ...	30 ✓	28 ✓	6 x 3 x 50 BA front 3 1/2 x 3 x 36 A	36" ✓	Lapped to top & bottom bars	5'-5" x 2'-6" after end p.s.	15" above sheathing	8'-1 5/8" ✓

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead ...	
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead No 14 ...	Weather boards full height in riveted channels. ✓
Bridge, Forward Bulkhead ...	
Forecastle Bulkhead ...	Weather boards full height in riveted channels. ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	
Exposed Machinery Casings on Superstructure Decks ...	Steel doors manipulated from both sides ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	None. ✓
Deckhouses on Flush Deck Ships ...	2" teak doors manipulated from both sides. ✓

Pacific Enterprise

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 shown on the following sketches:—



State any special features in the construction of the ship:— Vessel engaged in general trade.
 Timber assignment not required

Displacement 15155 tons at 27'0" draft 53.67 tons per inch
 " 15805 " " 28'0" " 54.06 " "

It is stated Freeboard request form is being sent by the Owners to London Office.
 Survey held afloat & therefore confined to an examination of the means for closing the openings in the decks & sides of the ship.
 The vessel was drydocked at Vancouver in Feb. 1932 & S.S. no 1 on hull completed at that time.

H.T. Ryke

Builder's name and yard number Blythwood S. B. Co. Ltd. Yard no 15.

Names of sister ships Pacific Reliance, Pacific Pioneer

Owners Norfolk N. American S. Shipping Co. Ltd. (Furness Withy & Co. Ltd. Mgrs)

Fee £ 14 : 9 : 0

Received by me



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