

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

27 FEB 3

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Shelter Deck R 14/12

(Type of Superstructures.)

Ship's Name "PRONTO"	Nationality and Port of Registry Norwegian Haugesund	Official Number 6278	Gross Tonnage 2201	Date of Build May 1920
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Moulded Dimensions: Length 271.2' Breadth 41.3' Depth 25.5' to Shelter Deck
Moulded displacement at moulded draught = 85 per cent. of moulded depth 5400 tons
Coefficient of fineness for use with Tables .773

Port of Survey Hongkong
Date of Survey Jan. 19, 23, 1933
Name of Surveyor J. L. Morrison
Particulars of Classification +100 A1
"Shelter Deck with freeboard"
S.S. Reg. No. 3-1.32

Depth for Freeboard (D)			Depth correction		Round of Beam correction	
Moulded depth	...	25.50	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	41.00
Stringer plate	4.8"		(25.75 - 18.33) 2.115 = + 15.70		Standard Round of Beam = $\frac{B \times 12}{50}$	9.84
Sheathing on exposed deck	2 1/2" Pine on Shelter Deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	10" 12.00
T $\left(\frac{L-S}{L}\right)$					Difference	2.16
Depth for Freeboard (D) =	25.75		If restricted by superstructures		Restricted to	
					Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right)$	$\frac{2.16}{4} = .54$

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	Complete	7' 6"			Standard Height of Superstructure <u>6.25</u>
" overhang ...	Shelter	5			" " R.Q.D. <u>✓</u>
R.Q.D. enclosed ...	Deck	13' 6"			Deduction for complete superstructure <u>33.5</u>
" overhang ...		at			Percentage covered $\frac{S}{L} =$
Bridge enclosed ...		Stem			" " $\frac{S_1}{L} =$
" overhang aft ...					" " $\frac{E}{L} =$
" overhang forward					Percentage from Table, Line A. (corrected for absence of forecastle (if required))
F'cle enclosed ...					Percentage from Table, Line B. (corrected for absence of forecastle (if required))
" overhang ...					Interpolation for bridge less than 2L (if required)
Trunk aft ...					Deduction = <u>NIL</u>
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...					

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	37.50	1		37.50	36.00	36.00	1		36.00	Mean actual sheer aft = <u>Defined > 75%</u>
1/8 L from A.P. ...	16.69	4		66.76	11.85	13.73	4		54.92	Mean actual sheer forward = <u>Less</u>
2/8 L " ...	4.12	2		8.24	2.95	3.43	2		6.86	Mean standard sheer aft
Amidships ...	—	4		—	0	—	4		—	Mean standard sheer forward
3/8 L from F.P. ...	8.25	2		16.50	9.85	10.37	2		20.74	Length of enclosed superstructure forward of amidships =
1/8 L " ...	33.38	4		133.52	39.50	41.47	4		165.88	" " aft of " =
F.P. ...	75.00	1		75.00	84.00	86.37	1		86.37	Does not apply.
Total ...				337.52					370.77	

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{33.25 (.75)}{18} = -1.39"$$

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 = 25.75
Summer freeboard = 6.77
Moulded draught (d) = 18.98

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4.74 = 4 3/4

Addition for Winter North Atlantic Freeboard (if required) = +2 = 6 3/4

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 4660$$

Tons per inch immersion at summer load water line

$$T = 22.3$$

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

$$= 5.22$$

$$= 5 1/4$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.773 + .680}{1.36} = \frac{1.453}{1.36}$

Depth Correction ... 15.70

Deduction for superstructures ...

Sheer correction ... 1.39

Round of Beam correction54

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. corresponding ...

Summer Freeboard = 81.25

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ^{2 1/2} Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ... 10" = 2.54

Fresh Water Line " " ... 5 1/4 = 1.33

Tropical Line " " ... 4 3/4 = 1.21

Winter Line below " " ... 4 3/4 = 1.21

Winter North Atlantic Line " " ... 6 3/4 = 1.72

6-9 1/4 = 2063

5-11 1/4 = 1809

6-4 = 1930

6-4 1/2 = 1942

7-2 = 2784

7-4 = 2255

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

Description of Hatchway	Shelter Deck				2 nd Deck				Fidley			
	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS	HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS
Dimensions of Hatchway	19'4" x 17'10 1/2"	19'4" x 17'10 1/2"	21'5" x 17'10 1/2"	3'7 1/2" x 3'7 1/2"	21'4" x 17'10 1/2"	23'0" x 17'10 1/2"	19'7" x 17'10 1/2"	21'4" x 17'10 1/2"	5'10 1/2" x 5'10 1/2"	5'6" x 5'6"	3'7 1/2" x 3'7 1/2"	3'4" x 3'4"
COAMINGS	Height above Deck ... 27 1/2"	Height above Deck ... 27 1/2"	Height above Deck ... 27 1/2"	Height above Deck ... 29 1/2"	Height above Deck ... 11 1/2"	Height above Deck ... 11 1/2"	Height above Deck ... 11 1/2"	Height above Deck ... 11 1/2"	Height above Deck ... 11 1/2"	Height above Deck ... 11 1/2"	Height above Deck ... 12"	Height above Deck ... 12"
COAMINGS	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"	Thickness ... 4 1/2"
COAMINGS	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20	Stiffeners ... 7 x 3 x 7/20
COAMINGS	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None	Brackets, Stays ... None
HATCH BEAMS	Number ... 3	Number ... 3	Number ... 4	Number ... 4	Number ... 4	Number ... 4	Number ... 4	Number ... 4	Number ... 1	Number ... 1	Number ... 1	Number ... 1
HATCH BEAMS	Spacing ... 4'-10"	Spacing ... 4'-10"	Spacing ... 4'-3 3/8"	Spacing ... 4'-3 3/8"	Spacing ... 4'-3 3/8"	Spacing ... 4'-3 3/8"	Spacing ... 4'-3 3/8"	Spacing ... 4'-3 3/8"	Spacing ... 2'-11 1/4"	Spacing ... 2'-11 1/4"	Spacing ... 2'-11 1/4"	Spacing ... 2'-11 1/4"
HATCH BEAMS	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20	Scantling and Sketch ... 7" x 16" x 3/20
HATCH BEAMS	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"
FORE AND AFTERS	Number ... None	Number ... None	Number ... None	Number ... None	Number ... None	Number ... None	Number ... None	Number ... None	Number ... None	Number ... None	Number ... None	Number ... None
FORE AND AFTERS	Spacing ... None	Spacing ... None	Spacing ... None	Spacing ... None	Spacing ... None	Spacing ... None	Spacing ... None	Spacing ... None	Spacing ... None	Spacing ... None	Spacing ... None	Spacing ... None
FORE AND AFTERS	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None	Unsupported Lengths ... None
FORE AND AFTERS	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None	Scantling and Sketch ... None
FORE AND AFTERS	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None	Bearing Surface ... None
HATCH COVERS	Material ... Pine	Material ... Pine	Material ... Pine	Material ... Pine	Material ... Pine	Material ... Pine	Material ... Pine	Material ... Pine	Material ... Pine	Material ... Pine	Material ... Pine	Material ... Pine
HATCH COVERS	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"	Thickness ... 3"
HATCH COVERS	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A	How fitted ... F+A
HATCH COVERS	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"	Bearing Surface ... 3"
Spacing of Cleats	21"	21"	21"	18"	34"	34"	34"	34"	34"	34"	None	20 1/2"
Number of Tarpaulins	3	3	3	2	1	1	1	1	1	1	None	3

*Are wood fore and afters steel shod at all bearing surfaces? *Yes*
 Are battens and wedges efficient and in good condition? *Yes*
 Are tarpaulins in good condition and in accordance with rule requirements? *Yes*
 Are lashings provided in accordance with rule requirements? *Yes*

Small hatches to F.P. Store + chain locker, 21" x 21" coaming 20 1/2" high x 7/20, Pine cover 2 1/2" bearing 2" Cleats 14 1/2" spacing, 2 Tarpaulins.
 Small hatch to aft peak store 2' x 2', coaming 14 1/2" high x 7/20, 2 1/2" wood cover, bearing 2", Cleats 12", 2 Tarpaulins.

Particulars of fiddle, funnel and ventilator coamings:— *Stokehold gratings covered by strong steel hinged covers. Fiddle + funnel ventilators in efficient condition. Engine skylight of steel strongly constructed.*

Particulars of Flush Bunker Scuttles:— *None*

Particulars of Companionways:— *Two companions aft, enclosed by steel deck house, leading to crew's quarters on 2nd Deck. Doors of solid wood 2" thick with sills 17" high. Doors can be operated from both sides.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
 1-8" dia. coaming 24" x 5/20 to Fore Peak
 4-19" " " 11-3" x 3/20 to Fore Hold } Sanction Post
 4-19" " " 11-3" x 3/20 to aft Hold }
 3-12" " " 8-6" x 7/20 to coal bunker (support from boat deck)
 2-12" " " 3-6" x 7/20 to crew's quarters aft

All ventilation constructed in accordance with the Rules, + coamings closed with wood plugs + canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
 1-3" dia x 15 1/2" high to F.P. tank
 3-3" " x 21" " to No. 1 D.B. tank
 4-3" " x 21" " " No. 2 " " "
 2-3" " x 21" " " No. 3 " " "
 2-3" " x 21" " " No. 4 " " "
 4-3" " x 25" " " No. 5 " " "
 2-3" " x 21" " " No. 6 " " "
 1-3" " x 25" " " A.P. tank

All air pipes of steel with goose neck, + openings closed with wood plugs.

Particulars of Gangway Cargo and Coaling Ports:—
 2 Watertight cargo doors P. + S. between shelter + 2nd deck, 4'-10" x 3'-0", efficiently constructed.

Particulars of Scuppers and Sanitary Discharge Pipes — *Discharges are fitted with gunmetal storm valves at ship's side + efficient traps or wood plugs at inner end.*

Particulars of Side Scuttles: *Side scuttles in 'tween decks fitted with hinged deadlights, sill of lowest side scuttle 23" below shelter deck amidships. Side scuttles in deck houses fitted with hinged + portable deadlights.*

Particulars of Guard Rails:— *Part bulwarks + part guard rails on shelter deck (See Sketch) Bulwarks for 3'9" high + bulwarks amidships 3'3" high, efficiently constructed + supported. Guard rails 3'6" high having 4 rods + stanchions spaced 4'6" apart.*

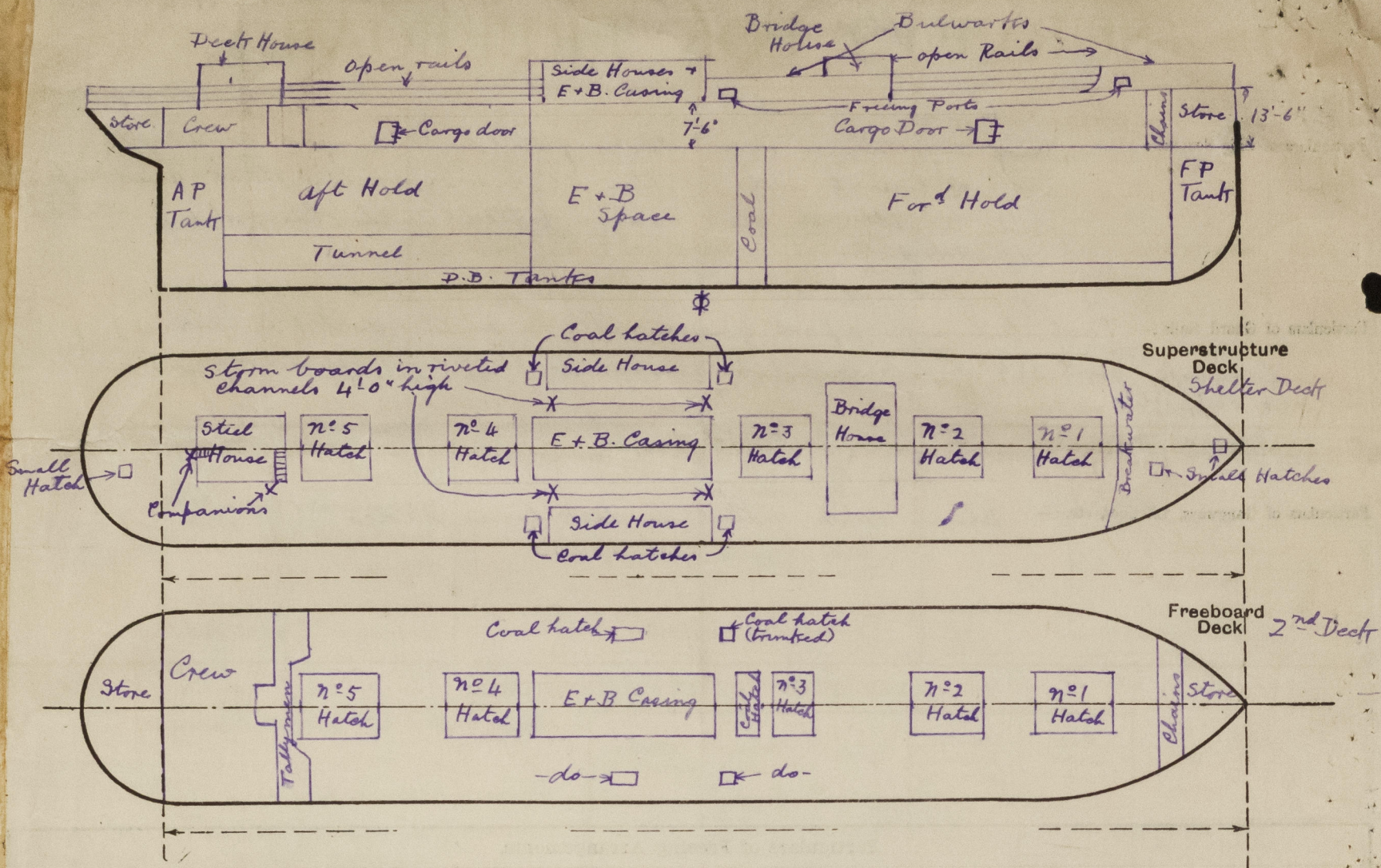
Particulars of Gangways, Lifelines, etc.:— *Storm rails fitted on deck house sides*

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well <i>amidships</i>	46'-0"	3'-3"	2.5' x 1.5'	1	3.75 #	
Forward Well	34'-0"	3'-9"	2.5' x 1.5'	1	3.75 #	
State position of each freeing port. ... After Well:— 9" above deck (F. and A. position and height above deck edge) Forward Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— <i>Vertical + horizontal bars.</i>						
Additional area where sheer is less than standard.						

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	✓							
Raised Quarter Deck Bulkhead	✓							
Bridge, After Bulkhead	✓							
Bridge, Forward Bulkhead	✓							
Forecastle Bulkhead	✓							
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓							
Exposed Machinery Casings on Superstructure Decks <i>Shelter Deck</i>	7/20	7/20	4x3x8/20 L	25"	<i>Brackets Top Taken to fore and aft.</i>	5'-3" x 2'-0"	15"	7'-6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓							
Deckhouses on Flush Deck Ships	7/20	7/20	3 3/4" x 3 7/20 L	24"	-do-	4'-9" x 2'-0"	17"	7'-6"

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	✓
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	✓
Bridge, Forward Bulkhead	✓
Forecastle Bulkhead	✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓
Exposed Machinery Casings on Superstructure Decks <i>Shelter Deck</i>	<i>Hinged steel doors can be operated from both sides.</i>
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓
Deckhouses on Flush Deck Ships	<i>Hinged wood doors 2" thick, can be operated from both sides.</i>

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, 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:— Shelter Deck.

Vessel surveyed afloat, condition survey only, & found in good general condition.

Particulars of present freeboard certificate:—

Assigning Authority:— Lloyd's Register

Certificate No. 72158

25000

Dated 20th Aug, 1924

S = 7'-1" (centre of disc)

FW = 4 1/2" above centre of disc

IS = 3" " " " "

W = 3" below " " " "

W.N.A = 5" " " " "

Measured from statutory deck line 2" above 2 1/2" wood deck (Shelter deck) at side.

Note Tonnage opening closed by steel deck house & freeing ports closed by riveted plates.

Builder's name and yard number N.V. Werf Zeeland Hansweert

Names of sister ships

Owners D/s A/s Produce (H.M. Wrangell & Co. A/s Mgrs)

Fee £ 320.00

Received by me



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