

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **22968**
(For London Office only.)Bdx Rpt No. **4317**

21 JUL 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having a Raised Quarter deck, Bridge and Forecastle.

Port of Survey Bordeaux.Date of Survey 12th-15th July 1932.Name of Surveyor John L. L...

Particulars of Classification +100 A.1.
SS Low No. 3-11, 29
SS Low No. 2-28

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
SUZON.	<u>Belgian</u> <u>Antwerp</u>	<u>214.</u>	<u>2239.</u>	<u>1913</u> <u>5mo.</u>

Moulded Dimensions: Length 279.33 Breadth 40.525 Depth 20.75
Moulded displacement at moulded draught = 85 per cent. of moulded depth 4368 tons
Coefficient of fineness for use with Tables .441

Depth for Freeboard (D)		Depth correction	Round of Beam correction
Moulded depth ...	<u>20.75</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(20.80 - 18.02) x 2.149 = 4.68</u>	Moulded Breadth (B) <u>40.525</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{9.66}{50} = 10$ Ship's Round of Beam = <u>10</u> Difference <u>excess .34</u> Restricted to Correction = $\frac{\text{Diff}^*}{4} \times (1 - \frac{S_1}{L}) = \frac{.34}{4} \times .2890 = (-).02$
Stringer plate ...	<u>.60</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	<u>nil</u>	If restricted by superstructures	
Depth for Freeboard (D) =	<u>20.80</u>		

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	✓				
" overhang ...	✓				
R.Q.D. enclosed ...	<u>116.25</u>	<u>116.25</u>	<u>4'-2 1/2"</u>	<u>4.208</u>	<u>111.41</u>
" overhang ...					
Bridge enclosed ...	<u>53.0</u>	<u>53.00</u>	<u>7'-3"</u>		<u>53.00</u>
" overhang aft ...	<u>.4</u>				
" overhang forward ...	<u>1.25</u>	<u>1.12</u>			<u>1.12</u>
Fore enclosed ... OPEN ...	<u>28.0</u>	<u>28.26</u>	<u>7'-3"</u>		<u>28.26</u>
" overhang ...	<u>.6</u>				
Trunk aft ...	✓				
" forward ...	✓				
Tonnage opening aft ...	✓				
" forward ...	✓				
Total ...	<u>199.10</u>	<u>198.63</u>			<u>193.49</u>

Standard Height of Superstructure 6.293
" " R.Q.D. 4.391
Deduction for complete superstructure 33.93
Percentage covered $\frac{S}{L} = \frac{11.24}{11.10} = 1.01$
" " $\frac{S_1}{L} = \frac{11.10}{11.10} = 1.00$
" " $\frac{E}{L} = \frac{69.39}{111.41} = .62$
Percentage from Table, Line A.
(corrected for absence of forecastle (if required)) 61.93
Percentage from Table, Line B.
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = .6193 x 33.93 = 21.01

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>37.93</u>	1		<u>37.93</u>	<u>39.39</u>	<u>39.00</u>	1		<u>39.00</u>
1/4 L from A.P. ...	<u>16.88</u>	4		<u>67.52</u>	<u>18.77</u>	<u>17.77</u>	4		<u>71.08</u>
1/2 L " ...	<u>4.17</u>	2		<u>8.34</u>	<u>4.44</u>	<u>4.44</u>	2		<u>8.88</u>
amidships ...		4		<u>0</u>			4		
3/4 L from F.P. ...	<u>8.35</u>	2		<u>16.70</u>	<u>10.07</u>	<u>10.07</u>	2		<u>20.14</u>
1/4 L " ...	<u>33.76</u>	4		<u>135.04</u>	<u>40.29</u>	<u>40.29</u>	4		<u>161.16</u>
F.P. ...	<u>75.87</u>	1		<u>75.87</u>	<u>87.87</u>	<u>87.00</u>	1		<u>87.00</u>
Total ...				<u>341.40</u>					<u>387.26</u>

Mean actual sheer aft = excess
Mean standard sheer aft = excess

Mean actual sheer forward = excess
Mean standard sheer forward = excess

Length of enclosed superstructure forward of amidships = 57.41 .106
" " aft of " = 139.58 .50

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{45.06}{18} \left(\frac{.75 - .3563}{2 \times 279.33} \right) = 1.00 (-)$

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 = 20.80
Summer freeboard = 1.98
Moulded draught (d) = 18.82

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 4.70 119Addition for Winter North Atlantic Freeboard (if required) = 2 51

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 = $\frac{\Delta}{40T}$ inches $=$ 4.40 119

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.441 + .68}{1.36} = \frac{1.121}{1.36}$

	+	-
Depth Correction ...	<u>4.68</u>	
Deduction for superstructures ...		<u>21.01</u>
Sheer correction ...		<u>1.00</u>
Round of Beam correction ...		<u>.02</u>
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	<u>4.68</u>	<u>22.03</u>

Summer Freeboard = 23.48SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, 23.48 = 604 1/4

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Tropical Fresh Water Line above Centre of Disc	<u>238 1/4</u>
Fresh Water Line	<u>119</u>
Tropical Line	<u>119</u>
Winter Line below	<u>119</u>
Winter North Atlantic Line	<u>170</u>

Tropical Fresh Water Freeboard ... 366
Fresh Water ... 485
Tropical ... 485
Winter ... 423
Winter North Atlantic ... 444

MARKING FORM
RECEIVED 31 JUL 1933
RECEIVED 24 AUG 1933

W4SD-0122 1/2

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS												
Fore Well Fore Well K. L. D. R. D. Bridge Deck Main Deck Bunker Hatch Bunker Hatch Trimming Hatch A.P.T. Hatch Escap Hatch (No. 1)												
Description of Hatchway	No. 1.	No. 2.	No. 3.	No. 4.	Bunker Hatch	Bunker Hatch	Trimming Hatch	A.P.T. Hatch	Escap Hatch	Escap Hatch	Escap Hatch	Escap Hatch
Dimensions of Hatchway	35'-3" x 25'-3" - 22'-6"	35'-3" x 25'-7"	33'-3" x 25'-7"	45'-0" x 25'-3" - 21'-2"	7'-2" x 3'-5"	12'-3" x 6'-3"	13'-6" x 3'-10"	3'-6" x 3'-11"	2'-7" x 1'-11"	2'-0" x 1'-6"	1'-11" x 1'-3"	1'-11" x 1'-3"
COAMINGS	Height above Deck	4'-2"	As No. 1.	3'-4"	3'-0"	6' x 3' x .50	6' x 3' x .50	15' x 3'-11"	15'	15'	15'	15'
	Thickness	.50	As No. 1.	As No. 1.	As No. 1.	.32	.32	.32	.32	.32	.32	.32
	Stiffeners	8' x 3' x .50 B.A.	As No. 1.	As No. 1.	As No. 1.	None	None	None	None	None	None	None
	Brackets, Stays	None	As No. 1.	As No. 1.	As No. 1.	None	None	None	None	None	None	None
HATCH BEAMS	Number	5	5	5	7	5	5	5	5	5	5	5
	Spacing	5'-10"	5'-11"	5'-7"	5'-8"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"
	Scantling and Sketch	5' x 3' x .44 Plate 34'-25" T-bar 6' x 4' x .60	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.
	Bearing Surface	6"	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.
FORE AND AFTERS	Number	5	5	5	7	5	5	5	5	5	5	5
	Spacing	5'-10"	5'-11"	5'-7"	5'-8"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"
	Unsuported Lengths	5'-10"	5'-11"	5'-7"	5'-8"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"	5'-10"
	Scantling* and Sketch	5' x 3' x .44 Plate 34'-25" T-bar 6' x 4' x .60	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.	As No. 1.
HATCH COVERS	Material	Pine	As No. 1.	As No. 1.	As No. 1.	Pine	Pine	30" steel	30" steel	30" steel	30" steel	30" steel
	Thickness	3'-2"	As No. 1.	As No. 1.	As No. 1.	2'-2"	2'-2"	30" steel	30" steel	30" steel	30" steel	30" steel
	How fitted	7' x 4' x .60	As No. 1.	As No. 1.	As No. 1.	7' x 4' x .60	7' x 4' x .60	30" steel	30" steel	30" steel	30" steel	30" steel
	Bearing Surface	3'	As No. 1.	As No. 1.	As No. 1.	2'-2"	2'-2"	30" steel	30" steel	30" steel	30" steel	30" steel
Spacing of Cleats	1'-10" - 2'-0"	As No. 1.	As No. 1.	As No. 1.	As No. 1.	2'-0"	2'-0"	30" steel	30" steel	30" steel	30" steel	30" steel
Number of Tarpaulins	3	As No. 1.	As No. 1.	As No. 1.	As No. 1.	2	2	30" steel	30" steel	30" steel	30" steel	30" steel
*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> Yes												
Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> Yes												
Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> Yes												
Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/> Yes where marked X.												

Particulars of fiddle, funnel and ventilator coamings:— Fiddle openings covered by hinged steel covers which require to be repaired. Engine Room skylight of steel strongly constructed. Two 24" Stokes Ventilators and two 12" Engine Room Ventilators on Main casing top.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

Two on Bridge deck strongly constructed of steel 3'-10" x 2'-6" x 4'-10" high each with 1 1/4" oak door 2'-0" x 3'-9" x 12" sill capable of being manipulated from both sides, leading to accommodation spaces and also to Engine Room through doors in E.R. casing below bridge deck.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— Forecastle deck. Two 10" Vents 16 1/2" Coaming to Deck Space, one 6" Vent 24" Coaming to Fore Peak Store Room. One 12" Vent 20" Coaming to No. 1 Hold. Two 4 1/2" Store funnels to fore spaces. Fore Well Deck one 12" Vent 30" Coaming to No. 2 Hold. Bridge Deck seven 6" Vents 14" Coaming to acc. spaces. One 5 1/2" Vent 11" Coaming to acc. spaces. One 3" Store Vent 9" high and one 5" goose neck vent 16" high port to acc. spaces. One 6" Tunnel Vent 2'-6" Coaming. Carried Quarter deck one 12" hold Vent 3'-6" Coaming. One 12" Hold Vent 2'-0" Coaming. All Ventilators constructed in accordance with the Rules. Wooden plugs & Canvas covers provided for closing same.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— One 3" air pipe to F.P.T. with open end through shell starb. side fore-castle 12" below fore-castle deck. Two D.B. tank air pipes opening through Stokesdale casing side (starb.) 20" x 28" above bridge deck fitted with permanent perforated covers (no plugs). One air pipe to A.P.T. on after peak tank W.T. hatch 3" then 9" high I-b. Remainder of air pipes are combined air and sounding pipes with patent brass water & janes caps on wood pads flush with deck.

Particulars of Gangway Cargo and Coaling Ports:—

None.

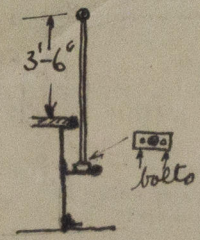


Particulars of Scuppers and Sanitary Discharge Pipes — One open 5" sanitary discharge pipe 12" above freeboard deck from Crews W.C. forecabin. Side house no valves. Bridge spaces one 5" sanitary discharge starboard 36" below freeboard deck and one to port 18" below freeboard deck with C.I. Storm Valve and efficient trap at inner end. One 1½" & one 1" open bath & wash basin discharges 36" below freeboard deck and 3½" above freeboard deck respectively, both fitted with Cocks at inner end starboard side. One 1½" open bath discharge 18" below freeboard deck on port side. Two 4" pressed steel scuppers from each side bridgedeck. One 3" C.I. Scupper from each side fore well deck after end discharging 15" below fore well deck. One 3" C.I. Scupper from each side raised quarter deck forward end discharging 15" below R.O.D.

Particulars of Side Scuttles: four each side to enclosed forecabin spaces. Six starboard and four port to enclosed bridge spaces. All these side scuttles are of efficient pattern 8½" diam. fitted with hinged deadlights. Sills 5'-6" above deck.

Particulars of Guard Rails: — 3'-0" high 2 rows of chains at sides & 2 rows rails at aft end, Stanchions spaced 4'-6". Forecabin deck. Steel bulwarks 4'-0" high bulb bar Stanchions spaced 5'-10". Forewell deck. 3'-0" high 2 rows of rails, Stanchions spaced 4'-0". Steel bulwarks 3'-0" high at fore end. Bridge deck. 3'-0" high 2 rows of rails, Stanchions spaced 4'-0". Steel bulwarks 3'-0" high at fore end. Raised quarter deck steel bulwarks 3'-6" high, bulb bar Stanchions spaced 5'-10".

Particulars of Gangways, Lifelines, etc.: — ~~made~~ ^{efficient arrangements} for a lifeline across the fore well are ~~made~~ ^{the owner proposes to install} a steel wire rope rope through portable stanchions bolted to the hatchway horizontal stiffeners as per sketch. ~~Eyebolts for lifelines fitted to Bridge and forecabin bulkheads~~

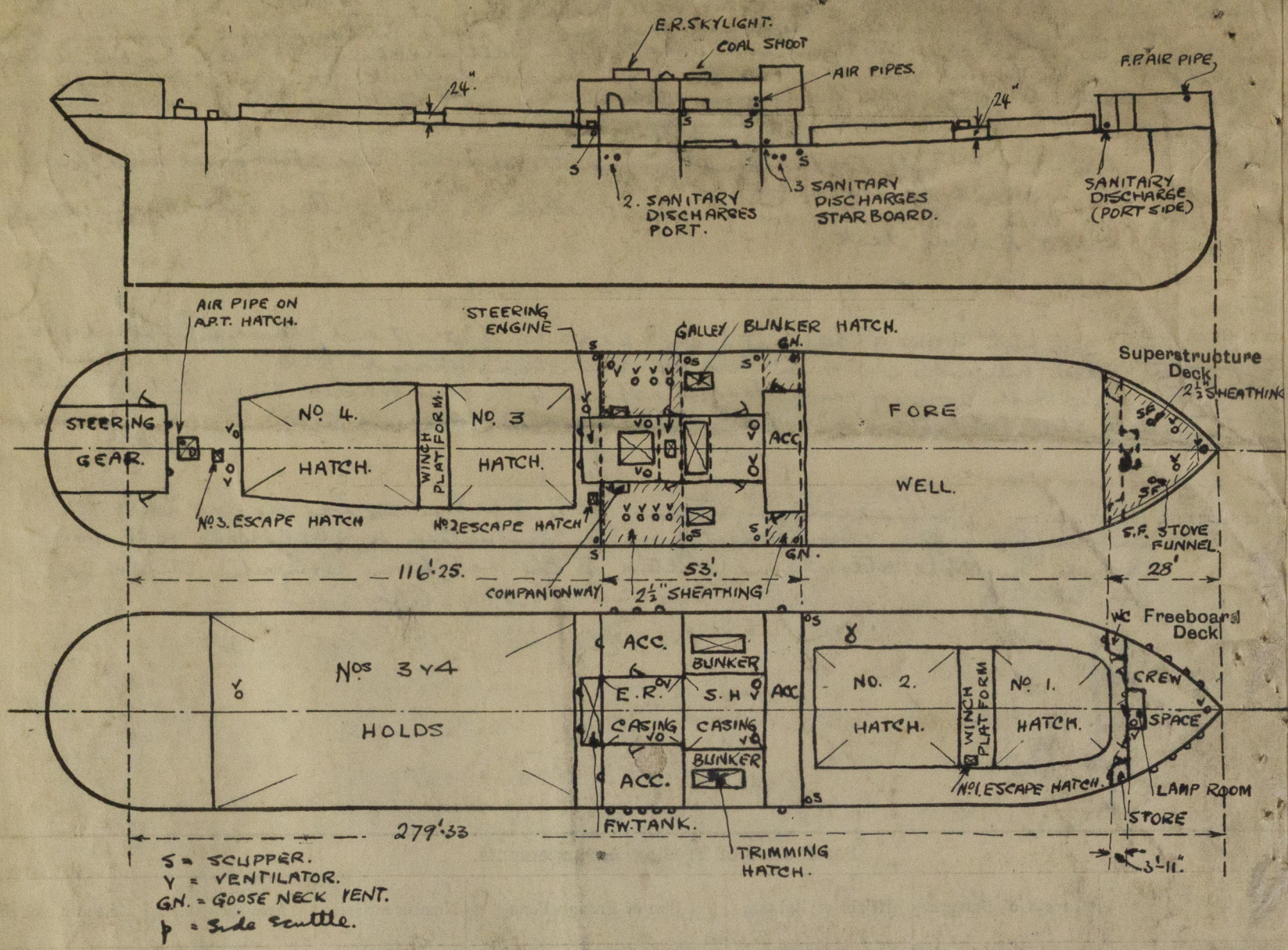


Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well R.O.D.	116.25 124-0	3'-6"	2'-10" x 1'-9"	5	24.80 ft.	23½
Forward Well	80.23 82-3	4'-0"	2'-9" x 1'-6" (24" x 12")	4. 1.	18.40 ft.	16.
State position of each freeing port (F. and A. position and height above deck edge) { After Well: 5'-6", 38°0', 49°0', 72'-4" & 95'-10" abaft bridge after bulkhead, 10" above deck edge. Forward Well: 5'-0", 20°0', 23°6', 51°0' & 67°5" forward bridge fore bhd. 12" above deck edge. State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — 3 horizontal rails no shutters aft. One horizontal rail and some with & some without shutters forward. 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								4'-2½"
Raised Quarter Deck Bulkhead			4x3x30 3x3x30 14" web.	36"	None to angle stiffeners web plate has bars to decks brackets to bottom	two 8½" side Scuttles	15" above R.O.D.	7'-3"
Bridge, After Bulkhead	.34	.34	7½"x3"x40 B.A.	2'-3"		Eight 9½" side Scuttles	5'-0"	7'-3"
Bridge, Forward Bulkhead	.38	.36	3x3x34 also side houses.	2'-6"	None	two 5'3½" x 2'-0"	1'-6"	7'-3"
Forecabin Bulkhead	.30	.30						
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓					two 4'-6" x 2'-0" doors	1'-6"	7'-0"
Exposed Machinery Casings on Superstructure Decks	.38	.32	3½"x3"x30	1'-11¼"	None	two 4'-6" x 2'-0" doors.	1'-6"	7'-3"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	.50	.30	3½"x3"x30	3'-10½"	None			
Deckhouses on Flush Deck Ships	✓							

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	✓
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	two 8½" side Scuttles with hinged deadlights. No openings
Bridge, Forward Bulkhead	Eight 9½" side Scuttles with hinged deadlights. No openings
Forecabin Bulkhead	Two 13/8" teak doors 4'-6" x 2'-0" manipulated from both sides. Above each door there is an opening 2'-1" x 9½" closed by 3/4" thick wood wedged between stiffeners. There are openings are intended for ventilation & are protected by the forecabin deck overhang.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Two 4'-6" x 2'-0" steel doors to stokehold capable of being worked from both sides.
Exposed Machinery Casings on Superstructure Decks	Two 13/8" teak doors 4'-6" x 2'-0" to engine room capable of being worked from both sides. Ell 18"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	✓

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:—

Deadweight Scale.

3300	19'-1"
3200	18'-8"
3100	18'-4"
3000	18'-0"

Copy of deadweight scale provided by owner forwarded herewith.

Tons per inch at L.W. stated to be 24 tons.

Survey held afloat and confined to examination of means for closing openings in decks and sides of ship.

Request form 9 forwarded herewith.

See also Rpt 8. not found

$$.75 D = 15.69 \quad \Delta = 3820 \quad D.W. = 2350 \quad L.W. = 1490$$

$$.05 D = 17.64 \quad \Delta = 12 \quad 17.76$$

$$\begin{array}{r} D.W. 2920 \\ L.W. 1490 \\ \hline \Delta 4390 \\ 24 \times 182.5 \\ \hline 4360 \Delta \text{ new} \end{array}$$

Builder's name and yard number S. P. Austin & Son Ltd.

Names of sister ships

Owners Marcel Soerens.

Fee £ will be charged on completion

Received by me ☒



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Foundation