

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for ~~Steamer~~ *Coasting Ship*, Tanker

having *Poop, Trunk, Forecastle*

(Type of Superstructures.)

Ship's Name **T.S.S. "FRASCA"** Nationality and Port of Registry *Dutch, Willemstad* Official Number **3552** Gross Tonnage **2602** Date of Build **1926-10**

Port of Survey *Curacao, S.W.I.*

Date of Survey *June 22nd & 23rd, 1932.*

Name of Surveyor *E.S. Whitham*

Particulars of Classification *+100 A1.*
Carrying petroleum in bulk.
S.S. Co No 1-30

Moulded Dimensions: Length **305.0** Breadth **50.2** Depth **15.16**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **4584** tons

Coefficient of fineness for use with Tables **825**

Depth for Freeboard (D) **15.2**

Depth correction

(a) Where D is greater than Table depth (D-Table depth) R = **-**

(b) Where D is less than Table depth (if allowed) (Table depth-D) R = **(20.33-15.04) 2.346**
5.29 x 2.346 = 12.41

If restricted by superstructures **x 6.33 = 11.92**

Round of Beam correction

Moulded Breadth (B) **50.2**

Standard Round of Beam = $\frac{B \times 12}{50} = \frac{50.2 \times 12}{50} = 12.048$

Ship's Round of Beam = **12.5**

Difference **0.452**

Restricted to **0.50**

Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{0.50}{4} \times (1 - \frac{81.26}{305.0}) = 0.124$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	86.50	88.50	6.25	6.29	84.98	Standard Height of Superstructure 6.55
" overhang ...						" " R.Q.D. 35.67
R.Q.D. enclosed ...						Deduction for complete superstructure 35.67
" overhang ...						Percentage covered $\frac{S}{L} = \frac{39.94}{305.0} = 13.10\%$
Bridge enclosed...	14.0	14.0	7.50	7.50		" " $\frac{S_1}{L} = \frac{81.26}{305.0} = 26.64\%$
" overhang aft ...						" " $\frac{E}{L} = \frac{78.48}{305.0} = 25.73\%$
" overhang forward	4.0	4.0	7.50	7.50		Percentage from Table, Line A. 73.42
Forecastle enclosed	33.33	33.33	7.50	7.50	33.33	(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B. 73.42
Trunk aft 126.09		126.09	6.25	6.29	121.04	(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	55.25	55.25	7.50	7.50		Deduction = 35.67 x 73.42 = 26.19
" forward						
Total ...	121.83	247.87			234.35	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	40.50	1	40.50	2.0	14.00	14.00	1	14.00	
$\frac{1}{2}$ L from A.P. ...	18.02	4	72.08	0.0	0	0	4	0	
$\frac{2}{3}$ L " ...	4.46	2	8.92	0.0	0	0	2	0	
Amidships ...	—	4	—	0.0	0	0	4	0	
$\frac{2}{3}$ L from F.P. ...	8.91	2	17.82	1.0	0	0	2	0	
$\frac{1}{2}$ L " ...	36.04	4	144.16	4.0	1.12	1.12	4	4.48	
F.P. ...	81.00	1	81.00	25.0	24.00	24.00	1	24.00	
Total ...			364.48					42.48	

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{364.48 - 42.48}{18} = \frac{322.00}{18} = 17.89$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **15.04**

Summer freeboard = **1.52**

Moulded draught (d) = **13.52**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{13.52}{4} = 3.38$ inches

Addition for Winter North Atlantic Freeboard (if required) = $3.05 + 3.38 = 6.43$ inches

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta = 4954$

Tons per inch immersion at summer load water line $T = 31.95$

Deduction = $\frac{\Delta}{40T}$ inches = $\frac{4954}{40 \times 31.95} = 3.89$ inches

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient $\frac{825 + 68}{1.36} = 1.105$

Depth Correction ... **11.92**

Deduction for superstructures ... **26.19**

Sheer correction ... **9.84**

Round of Beam correction ... **0.02**

Correction for Thickness of Deck amidships ... **—**

Other corrections, scantlings, etc. ... **—**

Summer Freeboard = **18.30**

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

Tropical Fresh Water Line above Centre of Disc ...	7.27	19	Tropical Fresh Water Freeboard ...	27
Fresh Water Line " " ...	3.37	10	Fresh Water " " ...	36
Tropical Line " " ...	3.38	9	Tropical " " ...	37
Winter Line below " " ...	3.38	9	Winter " " ...	55
Winter North Atlantic Line " " ...	6.43	16	Winter North Atlantic " " ...	63

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

STACHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	6. O.T. hatch to wing doors upper deck	5. O.T. hatch main doors stunk top	1. O.T. hatch stunk top	1. W.T. hatch fore hold stunk top	1. W.T. hatch back doors stunk top	1. W.T. hatch stunk top	1. O.T. hatch main doors stunk top
Dimensions of Hatchway	...	...	6' 6" x 7'	6' x 4'	5' x 4'	10' x 6'	3' x 3'	2' x 2'	4' x 4'
COAMINGS	Height above Deck Thickness Stiffeners Brackets, Stays	Sides Ends	4' 1"	4' x 3 1/2" BA	4' x 3 1/2" BA	4' x 3 1/2" BA	4' x 3 1/2" BA	4' x 3 1/2" BA	4' x 3 1/2" BA
			.50	.50	.50	.50	.50	.50	.50
			one 5 x 3 1/2"	✓	✓	✓	✓	✓	✓
			✓	✓	✓	✓	✓	✓	✓
HATCH BEAMS	Number Spacing Scantling and Sketch	4 hatches fitted with 30 top plate with one angle stiffener 3 x 3 x 40 top plate fitted and with manhole and riveted to angle	50 top	50 top	50 top	50 top	50 top	50 top	50 top
			18 toggles	18 toggles	18 toggles	18 toggles	18 toggles	18 toggles	18 toggles
			18 toggles	18 toggles	18 toggles	18 toggles	18 toggles	18 toggles	18 toggles
FORE AND AFTERS	Number Spacing Unsupported Lengths Scantling* and Sketch	3 x 3 x 3 x 50 around top of coaming 2 center hatches 50 top plate with 2 angle stiffeners 3 x 3 x 40 top plate fitted and riveted to angle	50 top	50 top	50 top	50 top	50 top	50 top	50 top
			18 toggles	18 toggles	18 toggles	18 toggles	18 toggles	18 toggles	18 toggles
			18 toggles	18 toggles	18 toggles	18 toggles	18 toggles	18 toggles	18 toggles
HATCH COVERS	Material Thickness How fitted Bearing Surface	riveted around top of coaming and forming headway for lashing	Steel	Steel	Steel	Steel	Steel	Steel	Steel
			.50	.50	.50	.50	.50	.50	.50
			hinged and 0.75	hinged and 0.75	hinged and 0.75	hinged and 0.75	hinged and 0.75	hinged and 0.75	hinged and 0.75
Spacing of Cleats	...	...	16 toggles	✓	✓	✓	✓	✓	✓
Number of Tarpaulins	...	...	✓	✓	✓	✓	✓	✓	✓

Particulars of fiddley, funnel and ventilator coamings:—

Engine Room and Fire-room ventilators and funnel in efficient condition.
Steel covers for girdle openings in good condition.
Engine Room sky-lights of steel strongly constructed and in good condition.

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:— one steel companionway on forecastle deck 3'0" x 3'9" x 6'0" leading to an enclosed forecastle. Door of steel 2'0" x 5'3" with 15" sill and capable of being manipulated from both sides. one steel companionway on Trunk Top 5'6" x 9'6" x 7'6" high leading to pump room. Door of steel 2'3" x 4'6" with 18" sill and capable of being manipulated from both sides.

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

<u>Forecastle Deck</u>	4-8 inch dia.	15"	Coaming	$\times \frac{1}{4}$ "	b.s.	to crew spaces & stores.
<u>Trunk Deck</u>	2-14 "	36"	Coaming	$\times \frac{2}{3}$ "		to Fore Hold & store
<u>Trunk Deck aft.</u>	2-18 "	36"	"	\times	"	Pump Room
<u>Poop Deck</u>	4-8 "	30"	"	$\times \frac{1}{4}$	"	Stove store & Refrig.
"	2-18 "	10'6"	"	$\times \frac{3}{8}$	"	Engine Room & stores. These two ventilators braced to
						Post Deck

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

Forecastle deck, 1 - 3" dia. 8" above deck to Fore Peak Tank.
 " " 5 - 3" dia. " " " " W.C's, P & S.
Trunk Top 1 - 3" dia. 14" " " on Cofferdam Manhole.
 " 3 - 4" dia. 4' 0" " " to Fuel Oil Tanks.
Poop Deck 1 - 4" dia. 6" " " after Peak Tank.
 2 - 3" dia. 8" " " " Fresh Water Tanks.

Freeboard Deck 4 - 4" dia. 6' 0" above deck
 to Fore & after Wing Tanks. Bkt to trunk.
 2 - 2" dia with valve 3' 9" above deck from
 centre Wing Tanks hatchways to main air vent
 to masthead.

Particulars of Gangway Cargo and Coaling Ports:—

None

Particulars of Scuppers and Sanitary Discharge Pipes — 2-6 inch and 3-4 inch storm discharge valves on ships side from W.C.'s. all discharges from wash basins etc in Poop, Captains Quarters and Forecastle fitted with storm valves on ships side and efficient traps at the inboard end. Two scuppers led from after peak flat to Engine Room Bilge. all storm valve chests of Cast Iron fitted with steel covers, scupper valves and pins excepting one 6 inch valve which was renewed at this time and fitted with brass valve and pin.

Particulars of Side Scuttles:

all side scuttles in Forecastle and Poop fitted with efficient hinged dead-lights permanently attached.

Particulars of Guard Rails :—

Rails: — Freeboard Deck 5' 6" high. 3 rails stanchions spaced 5 to 6 feet.
Forecastle Deck (port rails) " " " " " "
Trunk Top " " " " " "
Poop Deck " " " " " "

Particulars of Gangways, Lifelines, etc.:—

The Junk Top forms a gang-way between the Forecastle and the Poop.

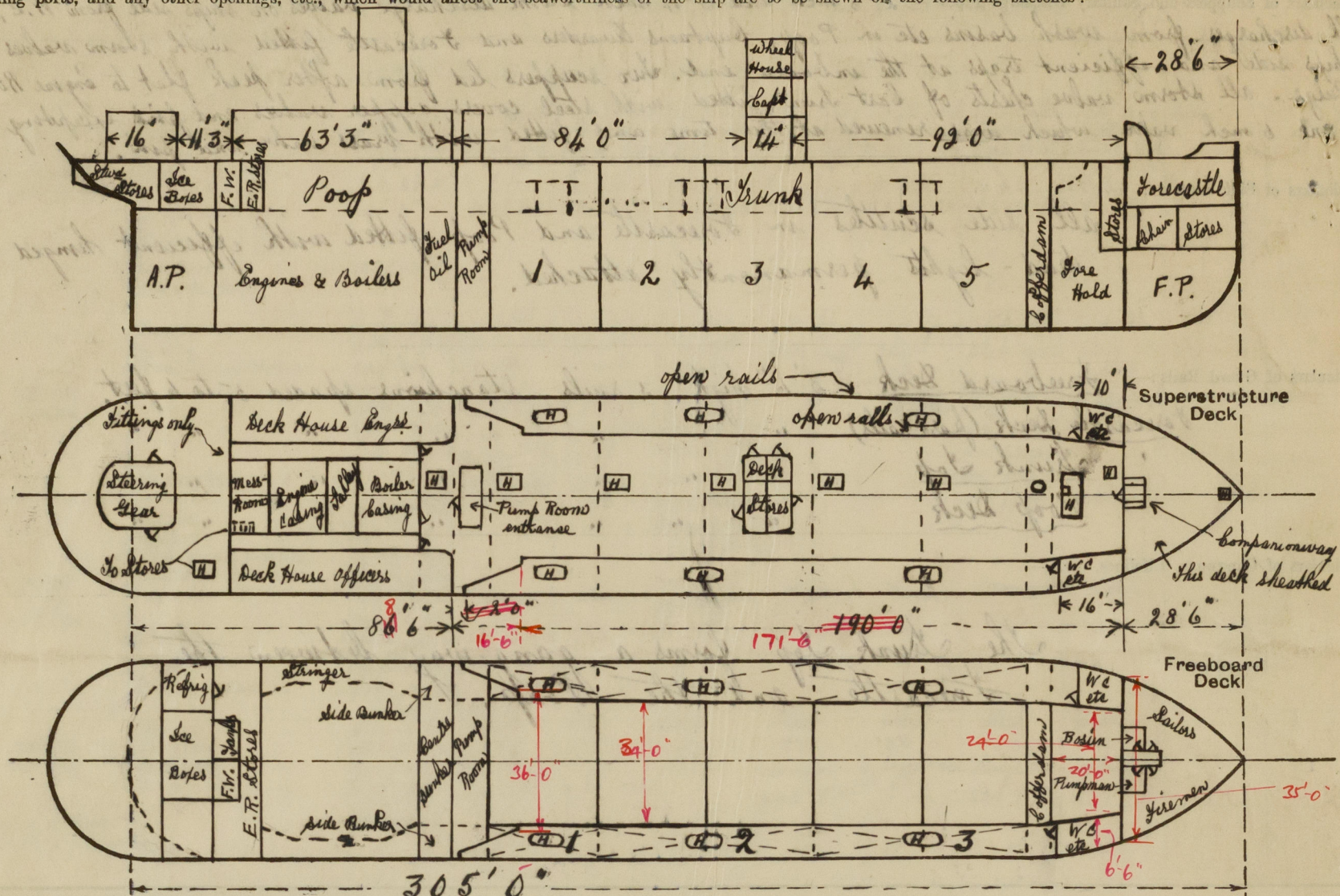
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	<i>open rails on Freeboard Deck and Trunk Top.</i>					
Forward Well						
State position of each freeing port { After Well :— (F. and A. 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 :—						
Additional area where sheer is less than standard.						

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓	34	4x3x34	24"	Bkts	✓	✓	✓
Raised Quarter Deck Bulkhead	30	26	3x1 1/2	24" to 42"	Bkts at top	2'0"x5'0"	18"	4'6"
Bridge, After Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, Forward Bulkhead	30	26	3x3x30	24" to 34"	Bkts	2'0"x5'0"	18"	22'6"
Forecastle Bulkhead	40	34	4x3x30	24"	Bkts	none complete	✓	4'6"
Trunk, Aft	44	42	3 1/2 x 3 x 34	24"	Bkts	✓	✓	6'3 1/2"
Trunk, Forward	44	42	3x3x40	24"	Bkts	✓	✓	6'3 1/2"
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Superstructure Decks	40	34	4x3x34	24"	Bkts	2'3"x4'6"	18"	4'6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓	✓	✓	✓	✓	✓	✓	✓
Deckhouses on Flush Deck Ships	✓	✓	✓	✓	✓	✓	✓	✓

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

Poop Bulkhead	...	no openings.
Raised Quarter Deck Bulkhead	...	2 steel doors capable of being manipulated from both sides.
Bridge, After Bulkhead	...	4 steel doors 2' x 5' x 18" sill. doors capable of being manipulated from both sides.
Bridge, Forward Bulkhead	...	No openings. Steel door 2'0" x 5'3" x 15" sill on Companionway capable of being manipulated both sides.
Forecastle Bulkhead	...	Steel door capable of being manipulated from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	all doors within superstructure in efficient condition.
Exposed Machinery Casings on Superstructure Decks	...	2 steel doors 1'10" x 4'9" x 18" sill to WC3 on Freeboard Deck. opening & closing appliances in order.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	
Deckhouses on Flush Deck Ships	...	

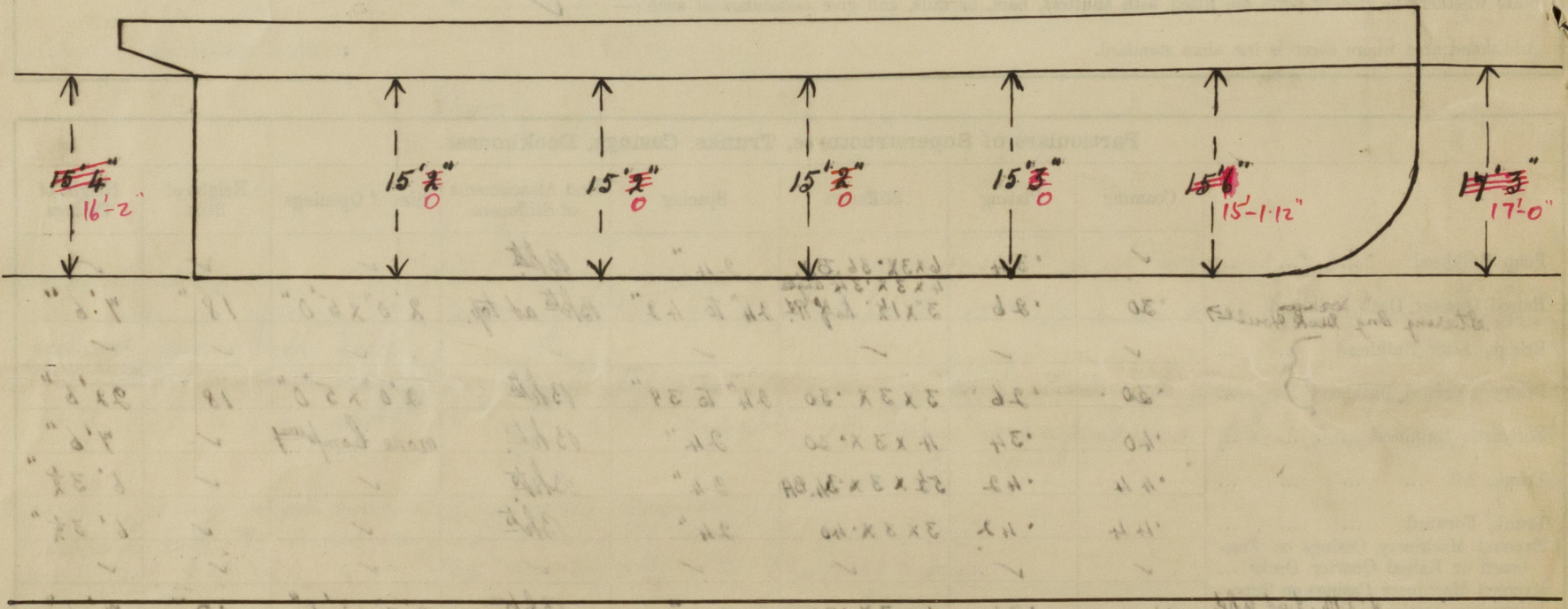
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



TRUNK
 aft section - 16.50 x 42.00 = 693.0
 Centre - 151.50 x 34.00 = 5151.0
 fwd - 15.17 x 30.2 = 458.0
 6302.0
 50 = 126.04

Side Equiv Blk
 Length to Blk = 28.50
 Sidehouse 26.0 x 6.5 = 169.0
 35 = 4.83
 33.33
 = Equiv Blk

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



Builder's name and yard number A. F. Smulders Nº 597

Names of sister ships "Telipa"

Owners Curacaosche Scheepvaart Maatschappij

Fee 150.00

Received by me _____