

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 19 APR 1932
 Index No. **32608**
 (For London Office only.)

21035.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having poop bridge and forecastle

(Type of Superstructures.)

Port of Survey Rotterdam

Date of Survey 4-6-8-16/4-32

Name of Surveyor J. van der Weel

Particulars of Classification 100 A.1

Ship's Name CARICA MILICA Nationality and Port of Registry Jugoslav. Official Number - Gross Tonnage 6371 Date of Build 1928-2

Moulded Dimensions: Length 424.5 Breadth 55.79 Depth 31.83

Moulded displacement at moulded draught = 85 per cent. of moulded depth 14566 tons

Coefficient of fineness for use with Tables .796

Depth for Freeboard (D) 31.83

Stringer plate 0.04

Sheathing on exposed deck NONE

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

Depth for Freeboard (D) = 31.84

Depth correction

(a) Where D is greater than Table depth
 $(D - \text{Table depth}) R = (31.87 - 28.3) 3 = +10.71$

(b) Where D is less than Table depth (if allowed)
 $(\text{Table depth} - D) R =$

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 55.79

Standard Round of Beam = $\frac{B \times 12}{50} = 13.39$

Ship's Round of Beam = 14

Difference .61

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.61^2}{4} (1 - .502) = -.08$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	35.3	35.25	8'-6"		35.25
" overhang ...	-				
R.Q.D. enclosed ...	-				
" overhang ...	-				
Bridge enclosed...	142.7	142.58	8'-6"		142.58
" overhang aft ...	-				
" overhang forward	-				
Forecastle enclosed ...	35.3	35.25	8'-6"		35.25
" overhang ...	-				
Trunk aft ...	-				
" forward ...	-				
Tonnage opening aft ...	-				
" forward	-				
Total ...	273.08	273.08			273.08

Standard Height of Superstructure 7.5'

" " R.Q.D. ✓

Deduction for complete superstructure 42"

Percentage covered $\frac{S}{L} = 50.22$

" " $\frac{S_1}{L} = 50.22$

" " $\frac{E}{L} = 50.22$

Percentage from Table, Line A.
 (corrected for absence of forecastle (if required)) 36.20

Percentage from Table, Line B.
 (corrected for absence of forecastle (if required)) 36.20

Interpolation for bridge less than 2L (if required)

Deduction = $42.0 \times .362 = -15.20$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	52.45	1		52.45	60	60.00	1		60.00
1/2 L from A.P. ...	23.34	4		93.36	25.3	26.07	4		104.28
2/2 L " ...	5.77	2		11.54	5	6.50	2		13.00
Amidships ...	-	4		-	-	-	4		-
2/2 L from F.P. ...	11.54	2		23.08	13.5	15.76	2		31.52
1/2 L " ...	46.68	4		186.72	64	63.19	4		252.76
F.P. ...	104.90	1		104.90	144	144.00	1		144.00
Total ...				472.05					605.56

Mean actual sheer aft = none

Mean standard sheer aft = none

Mean actual sheer forward = none

Mean standard sheer forward = none

Length of enclosed superstructure forward of amidships = 1694

" " aft of " = 1665

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{133.51}{18} (.75 - .251) = -3.40$

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 = 31.87

Summer freeboard = 6.458

Moulded draught (d) = 25.4239

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.35 = 6 1/4

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 13556$$

Tons per inch immersion at summer load water line

$$T = 48.4$$

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

$$= 7.00$$

$$= 4"$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$$\frac{.796 + .63}{1.36} = \frac{1.426}{1.36} \times 79.2$$

Depth Correction ... 10.71

Deduction for superstructures ... 15.20

Sheer correction ... 3.70

Round of Beam correction08

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

	+	-
Depth Correction	10.71	
Deduction for superstructures		15.20
Sheer correction		3.70
Round of Beam correction		.08
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	10.71	18.98

Summer Freeboard = 44.69

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 " " ... 7"

Tropical Line " " ...

Winter Line below " " ... 6 1/4"

Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...



1906 } S = 6'-5 1/4"

W = 6'-11 3/4"

W4390176(112)

 Assigned under
 1906 Regulations.

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS															
Description of Hatchway			FREEBOARD DECK					BRIDGE DECK III	BRIDGE DECK		FREEBOARD DECK IN BRIDGE				
			I	II	III	IV	V		COAL HATCH	COAL HATCH	2 COAL H.	1 COAL H.			
Dimensions of Hatchway			33'-9" x 22'	36'-3" x 22'	29'-22'	33'-10" x 22'	31'-5" x 22'	29' x 22'	35" x 11'-9"	35" x 4'-6"	3'-x 6'-11"	4'-6" x 4'-11"			
COAMINGS	Height above Deck ... Thickness { Sides ... Ends ... Stiffeners ... Brackets, Stays ...	...	36' ✓	36' ✓	18' ✓	36' ✓	36' ✓	36' ✓	36' ✓	36' ✓	BA. 9' x 3' x .40' ✓			
		...	.54' ✓	.38' ✓	.50' ✓	.08' ✓	.50' ✓	.50' ✓	.36' ✓	.36' ✓			
		...	.44' ✓	.44' ✓	.44' ✓	.44' ✓	.44' ✓	.44' ✓	.36' ✓	.36' ✓	✓	✓	
		...	39.7' x 3.46' ✓	44' ✓	44' ✓	44' ✓	44' ✓	44' ✓	✓	✓	✓	✓			
HATCH BEAMS			Number Spacing Scantling and Sketch ... 					6 ✓ EQUAL ✓ 18 1/2' x 36' ✓		4 ✓ - ✓ 18 1/2' x 36' ✓		5 ✓ - ✓ 18 1/2' x 36' ✓		4 ✓ - ✓ 18 1/2' x 36' ✓	
Bearing Surface ...			4 3/4' x 3' x 36' ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓			
FORE AND AFTERS			Number Spacing Unsupported Lengths ... Scantling* and Sketch ... 					6 ✓ EQUAL ✓ 18 1/2' x 36' ✓		4 ✓ - ✓ 18 1/2' x 36' ✓		5 ✓ - ✓ 18 1/2' x 36' ✓		4 ✓ - ✓ 18 1/2' x 36' ✓	
Bearing Surface ...			4 3/4' x 3' x 36' ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓	d° ✓			
HATCH COVERS			Material Thickness How fitted Bearing Surface					PINE ✓ 3" ✓ LONGIT. ✓ 4 3/4' x 3' x 36' ✓		PINE ✓ 3" ✓ TRANSV. ✓ 2 1/2' ✓		d° ✓ d° ✓ 3' ✓ 3' ✓		d° ✓ d° ✓ 3' ✓ 3' ✓	
Spacing of Cleats			20' ÷ 23' ✓												
Number of Tarpaulins			3 ✓ every hatch.												
*Are wood fore and afters steel shod at all bearing surfaces? <u>yes.</u>															
Are battens and wedges efficient and in good condition? <u>yes.</u>															
Are tarpaulins in good condition and in accordance with rule requirements? <u>yes.</u>															
Are lashings provided in accordance with rule requirements? <u>yes. - steel wire lashings, eyes lashed.</u>															

Particulars of fiddley, funnel and ventilator coamings :—

Fidley funnel and ventilator coverings of a substantial construction.
Gratings over fidley fitted with strong hinged steel covers.
Hatch saddleback. 4'-8" x 19'. Coam 12" x .38". Complete battening.
to flush bunker scuttles.

Particulars of Flush Bunker Scuttles:—

No flash & bumper scuttles. ✓

Particulars of Companionways:— Companion to storeroom in bridge: at after end steel saloon house.

Particulars of Companionways:— Companion to storeroom in bridge: at afterend steel saloon house.
is a double wood door, operated from both sides, sill 21".
In exposed forebay each side an ordin. hinged steel door, operated from both sides.
sill 18".
Door to Engineer's room f.s. and s.s. in the steel central deck house: ordinary
hinged steel doors, operated from both sides, sills 19" above wood deck.
Underway inside poop quarters, ord. hinged steel door, oper. from both sides: sill 8½" above
wood deck: door closed with 2 cleats.
Door to poop truss deck ord. hinged steel double
door in poop's panage, oper. from both sides, sill 5".

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

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—									
ON FOCLE DECK	2 VENTS.	DIA 12	COAM 36" x 40"	TO FOCLE SPACE	OR BRIDGE DECK	2 VENTS	DIA. 9	COAM 30" x 36"	TO BRIDGE SPACE
FO'AWELL	2 "	" 26	" 36" x 40"	" HOLD.	IN AFTER WELL	2 "	" 12	" 36" x 36"	" DEEPIANK.
	" "	" 26	" 36" x 40"	" "		" "	" 36	" 36" x 40"	" HOLDS.
BRIDGE DECK	2 "	" 6	" 19" x 30"	" BRIDGE STORES.	ON POOP DECK	2 "	" 6	" 19" x 30"	" POOP SPACES
"	2 "	" 26	" 36" x 40"	" HOLD.		14 "	" 6	" 33" x 30"	" "
"	2 "	" 24	" SAMSON POST	" "		4 "	" 8	" 33" x 34"	" "
"	2 "	" 6	" COAM 38" x 30"	" BRIDGE SPACE (NOT SUPPORTED)		1 "	" 8	" 33" x 34"	" TUNNEL
"	4 "	" 0	" 30" x 36"	" BRIDGE SPACE					
"	4 "	" 0	" 30" x 36"	" LOWER TWEEDY BUNKERS					

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

All ventilator openings are constructed in accordance with the Regulations. They can be closed by wood plugs and canvas covers.

Particulars of Gangway Cargo and Coaling Ports:— *NONE*

[illegible]

Well goosenecks can be closed with canvas covers. The goosenecks in the wells are fixed with snifting poles.


Particulars of Scuppers and Sanitary Discharge Pipes —
 In No. 3 lower tween deck 1 storm valve each side of M.C. — with storm valve 5' below freeboard deck.
 In lower tween deck bunker each side 1 storm valve W.C. 5' 6" below freeboard deck. On S.S. all scupper
 opening 58" below freeb. deck, carried up w.t. to 12" above bridge deck. In bridge compartment all 5.5. 3
 and on ps. 2. scupper pipe from saloon deck house to ship's side, without valves, opening 15" above
 freeboard deck. In bridge bunkerspace both sides 6 scupper pipes from central deck house to ship's
 side without valves, opening 15" above freeb. deck.
 Particulars of Side Scuttles ~~None~~
 Only portlights in poop.
 No. 12 forward with hinged steel
 headlight and 36" below
 poop deck.

Particulars of Guard Rails :—

- Fore deck guardrail ^{40" high.} 5'-2" of a substantial construction. Stanchions 5'-2" apart and riveted to stringer plate. 3 Rods. Ditto on poop deck. ✓
Bridge deck plain bulwark, 40" high; stanchions 56" x 30" spaced 4'-7" 2 freeports each side. oval 36" x 22". Height lower edge above deck 12".
Openings fitted with 3 vertical bars. At the end of the bridge deck, open rails are fitted. ✓
feelings, etc. :-

Particulars of Gangways, Lifelines, etc. :—

~~There are no gangways or lifelines fixed.~~
Mamella rope lifelines fitted when necessary in after well
from ladder to ladder and doors in the poop frame, lined to
ventilators and messhouse, for the protection of the crew, which
are berthed in the poop and on bridge.

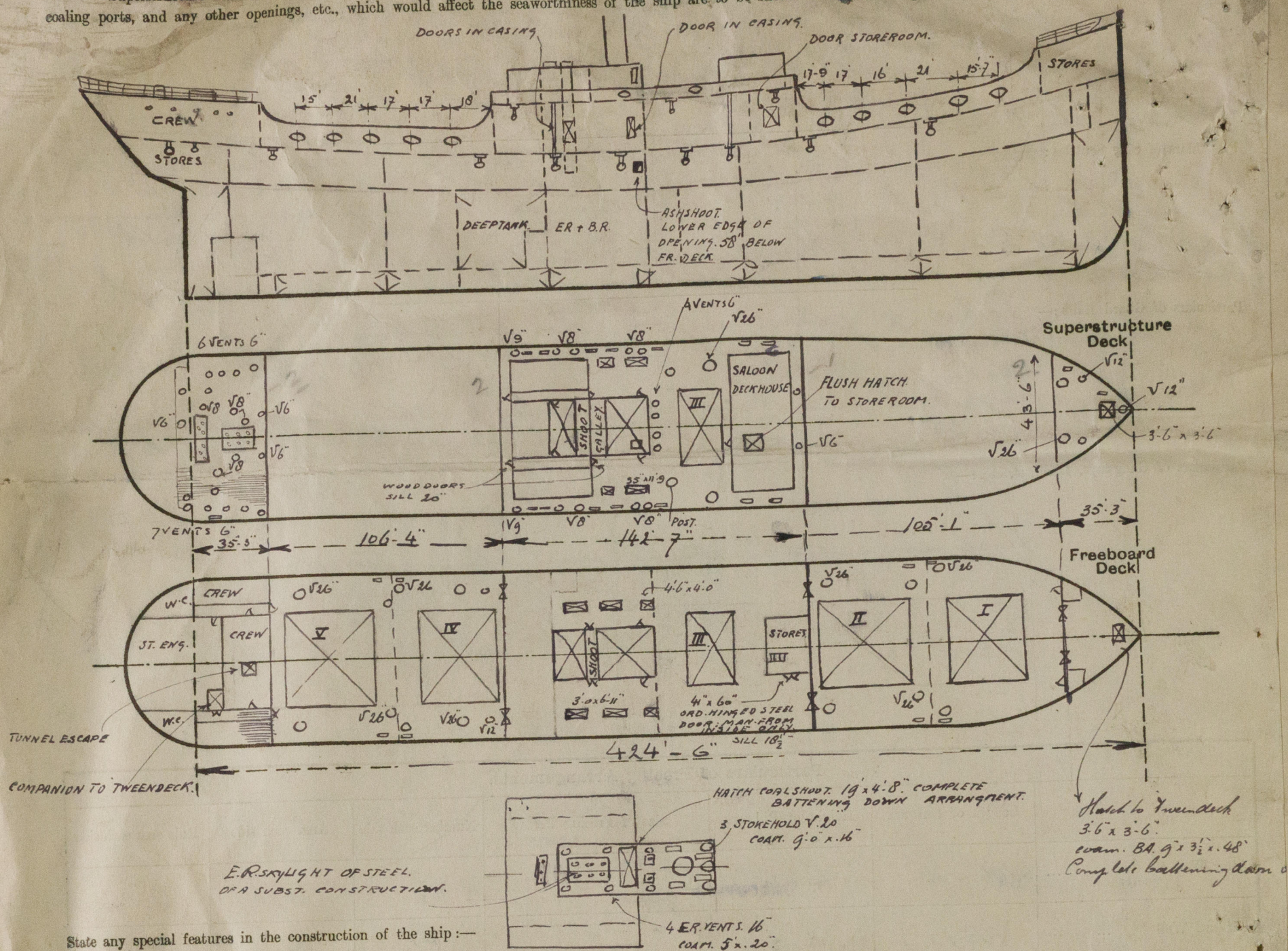
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	106'-4"	4'-2"	 36"x22"	5	21.6 f. ²	21.26
Forward Well	105'-1"	4'-2"	0"	0	21.6 f. ²	21.02
State position of each freeing port (F. and A. position and height above deck edge)			} After Well:— see sketch. } Forward Well:— length of lower edge above deck = 12"			
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—			no. Shuttles, bars or rails			
Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses, Casings								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	10' 1" x 40'	.32	B.A. 5 1/2" x 3" x 40"	30"	BRACK. TOP & BOTTOM	3.5. 37" x 4'-7"	21"	
Raised Quarter Deck Bulkhead ...						2. 25" x 4'-7"		
Bridge, After Bulkhead	10" x 40'	.30	4' 3" x 3" x 30"	27"	NONE	37" x 5'-4"	18"	
Bridge, Forward Bulkhead	19" x 44'	.40	B.A. 9 1/2" x 3 1/2" x 50"	30"	BRACK. TOP & BOTTOM	41" x 4'-9"	19"	
Forecastle Bulkhead	10" x 40"	.32	4' 3" x 3" x 32"	28 1/2"	NONE	20" x 37" x 5'-11"	18"	
Trunk, Aft	-							
Trunk, Forward	-							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	-							
Exposed Machinery Casings on Superstructure Decks ...	18" x 38"	.32	4' 3" x 3" x 30"	28"	NONE	22" x 4'-7"	18"	7'-6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	17" x 40'	.30	4' 3" x 3" x 30"	28"	NONE	22" x 4'-7"	20"	
Deckhouses on Flush Deck Ships ...	-							

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

Pop Bulkhead	...	...	...	On s.s. double wood door, operated from both sides. f.s. single wood door, man. both sides.
Raised Quarter Deck Bulkhead	...	...	...
Bridge, After Bulkhead	...	...	...	2 3/4" weatherboards in twisted channels over full height. ✓
FORECASTLE				
Bridge, Forward Bulkhead	...	...	...	In wings & d'n. hinged steel door; further 2 g'nings 2 3/4" w. boards in twisted & full height ✓ keeping strong, plate and buckhead 6" apart ✓
<u>BRIDGEFRONT.</u>				Steel door, bolted on bulkheads with ordinary screw bolts, doors stiffened with angle bar frame. ✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks	...	...	...	Ordinary hinged steel doors, manipulated from both sides. ✓ 2020
Exposed Machinery Casings on Superstructure Decks	...	...	...	Ordinary hinged steel doors, manipulated from both sides. ✓
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:—



On the foredeck 2 steel skylights overhead messroom and room steering engine. of a substantial construction, flaps of wood. h = 20".
The marked bulkheads in the fore-part are of steel.

Builder's name and yard number Doxford & Sons Ltd. Sunderland.

Names of sister ships

Owners Jugo Slavenski Lloyd Dubrovnik d.d.

Fee £ 104,-

Received by me

Van der Weel



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