

25 OCT 1932

Index. No. **34256**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

175
14

 Computation of Freeboard for Steamer, Sailing Ship, Tanker
Loop, long Bridge & Forecastle. Shell's Deck.
Port of Survey **LISBON.**Date of Survey **8th 11th 18th Oct. 1932.**Name of Surveyor **G. T. B. SCULLARD.**
 (Type of Superstructures.)
 Ship's Name **"MOCAMBIQUE"** Nationality and Port of Registry **PORTUGUESE LISBON.** Official Number **6052.25** Gross Tonnage **12790** Date of Build **1908.**

 Moulded Dimensions: Length **400.8** Breadth **52.25** Depth **24.8**
 Moulded displacement at moulded draught = 85 per cent. of moulded depth
 Coefficient of fineness for use with Tables **7189**

 Recommended for:-
 Particulars of Classification **-100 A.C.**
 Recommended for:-
S.S. N. 3. Lis. - 10.32.

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	35.25	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	52.00
Stringer plate	.05	(35.43 - 26.63) 3 = + 26.40		Standard Round of Beam = $\frac{B \times 12}{50}$	12.48
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	12.50
$T \left(\frac{L-S}{L} \right) =$.19 x .6894 = .13	If restricted by superstructures		Difference	.02
Depth for Freeboard (D) =	35.43			Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{.02}{4} \times .7312 = \text{Nil}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	50.75	50.75	7.5'		50.75
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...	173.41		8'		
" overhang aft ...					
" overhang forward	73.33				
Fore enclosed ...	77.83	56.64	7.5'		56.64
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	124.08	107.39			107.39

 Standard Height of Superstructure **7.50 495**
 " " R.Q.D. **42.0 41.96**
 Deduction for complete superstructure **41.96**
 Percentage covered $\frac{S}{L} = 31.06$
 " $\frac{S_1}{L} = 26.88$
 " $\frac{E}{L} = 26.88$
 Percentage from Table, Line A. **13.44**
 (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 = **41.96** x .1344 = **5.64**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	49.95	1		49.95	30.2	27.50	1		27.50
$\frac{1}{2}$ L from A.P. ...	22.23	4		88.92	8	3.67	4		14.68
$\frac{2}{2}$ L " ...	5.49	2		10.98	2	-4.33	2		-8.66
Amidships ...		4			0		4		
$\frac{2}{2}$ L from F.P. ...	10.98	2		21.96	19	17.42	2		21.96
$\frac{1}{2}$ L " ...	44.46	4		177.84	45	48.96	4		177.84
F.P. ...	99.90	1		99.90	93	90.0	1		99.90
Total ...				449.55					333.22

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

If limited on account of midship superstructure.

 Mean actual sheer aft = **19.17%**
 Mean standard sheer aft = **133.11**

 Mean actual sheer forward = **Even**
 Mean standard sheer forward = **Even**

 Length of enclosed superstructure forward of amidships = **No bridge**
 " " aft of " = **Even**

 Correction = $\frac{116.33}{18} \left(.75 - \frac{.1553}{2} \right) = + 3.84$
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 = **35.49**
 Summer freeboard = **10.97**
 Moulded draught (d) = **24.52**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6.13**Addition for Winter North Atlantic Freeboard (if required) = **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 = $\frac{\Delta}{40 T}$ inches $=$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	26.40	
Deduction for superstructures		5.64
Sheer correction	3.84	
Round of Beam correction		
Correction for Thickness of Deck amidships	34.49	
Other corrections, scantlings, etc.	33.34	
Summer Freeboard	64.27	5.64

Summer Freeboard = **131.64**

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

Tropical Fresh Water Line above Centre of Disc	310	318	Tropical Fresh Water Freeboard	3344	3383
Fresh Water Line	155	156.5	Fresh Water	3032	3073
Tropical Line	155	156.5	Tropical	3188	3228
Winter Line below	155	156.5	Winter	3188	3228
Winter North Atlantic Line	206	207.6	Winter North Atlantic	3500	3538
				3551	3589

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

		HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
		No. 1		No. 2		No. 3		No. 4		No. 5	
Description of Hatchway		F'ile.	Shelter.	Upper.	Shelter.	Upper.	Shelter.	Upper.	Shelter.	Upper.	Shelter.
Dimensions of Hatchway		17' x 14'	17' 1/2 x 14'	17' 1/2 x 14'	21' 7 x 14'	Trunk	17' 2 1/2 x 14'	Trunk	15' x 14'	Trunk	
COAMINGS	Height above Deck	27"	26 1/2"	17 1/2"	26 1/2"		29"		29"		
	Thickness Sides	1 1/4"	1 1/4"	1 1/4"	1 1/4"		1 1/4"		1 1/4"		
	Stiffeners Ends	1 1/4"	1 1/4"	1 1/4"	1 1/4"		1 1/4"		1 1/4"		
	Brackets, Stays	6 x 3 x 3/8"	4" x 4" x 3/8"	as shelter deck	as No. 1 F'ile.		as No. 1 F'ile.		as No. 1 F'ile.		
HATCH BEAMS	Number	3	3	3	4		3		3		
	Spacing	4' x 4"	4' x 4"	4' x 4"	4' x 4"		4' x 4"		4' x 4"		
	Scantling and Sketch	1 Beam 16 x 3 1/8"	2 T	2 T	1 Beam 16 x 3 1/8"		2 T		2 T		
	Bearing Surface	2 1/2"	2"	2 1/4"	2"		2"		2"		
FORE AND AFTERS	Number										
	Spacing										
	Unsupported Lengths										
	Scantling and Sketch										
Bearing Surface											
HATCH COVERS	Material	h.p.	h.p.	h.p.	h.p.		h.p.		h.p.		
	Thickness	3 1/2"	2 1/2"	2 1/2"	2 1/2"		2 1/2"		2 1/2"		
	How fitted	h.p.	h.p.	h.p.	h.p.		h.p.		h.p.		
	Bearing Surface	3"	3"	3"	3"		3"		3"		
Spacing of Cleats		23"	23"	24"	24"		24"		24"		
Number of Tarpaulins		3	3	1	3		3		3		

Particulars of fiddley, funnel and ventilator coamings:—

No openings on fidley hatchhold. Ventilation through vents only.
Fidley vents in efficient condition. Engine room skylight of steel strongly
constructed.

Particulars of Flush Bunker Scuttles:—

On both starboard sides shelter deck each 2 scuttles. Cast Iron Covers of substantial construction, bayonet fastenings. It is the practise after coaling to cement over the covers. No chains fitted as, it is stated, that Chutes are fitted for coaling.

Particulars of Companionways :—

None

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— *All vents have galvanized iron flues & canvas covers. 11-9'x18" T.P. stores. 6-12'x22" canvas ventilators. 2-6'x18" canvas stores. 2-18'x18" N°1 hold. 3-9'x18", 2 mushroom 8'x24", 1 gramework 6'x8½'x30" horizontal or canvas stores.*

*Shelter deck:— 2-14'x22", 2nd saloon. 25 S. 23 P grameworks. 5'x3½'x27" for accommodation. 2-18'x8'6" 4 N°1 (stayed & file deck). 2 T-headed 16'x28" 4 N°2; 1-9'x23" 2nd saloon; 1-15'x20" 3 class; 1 T-headed 12'x9' 4 N°3. 1 stayed & braced deck; 10 P. 24 grameworks to deck. 2-18'x18" N°4. 2-12'x18" stewards' room. *wood flues fitted to all gramework ventilators.**

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

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

On Forecastle one steel 3" x 15" L Forepeak. Remainder bare flush screwed
Caps. wood planks fitted to air pipe on fore peak
~~and to rest~~
Means of clearing

Particulars of Gangway Cargo and Coaling Ports:—

4 Gangway Docks in Bulwarks (E) 5' 0" long, 9" sill. Angle frame 3" x 3" x 5/16" fastened by one 7/8" slip bolt. Hinges efficient.

4 Boaling Docks each 1st opening 2' 6" x 1' 10" covers fastened by 2 - 1 1/4" stretching screws with fork ends fitted on 1/2" angle lugs ^{missing} on cover & inner bulkhead plate. Lugs 4" long x 2 1/2" x 3" x 1/2" angle.

*Boaling docks are strongly constructed
have in efficient condition.*

Particulars of Scuppers and Sanitary Discharge Pipes —

all w.c., Lavatory &c. discharge pipes on vessel's sides fitted with T.H. valves.
Sump pipes 2", no valves, discharge above upper deck.

Particulars of Side Scuttles :

All side scuttles of substantial construction with efficient deadlights.

Particulars of Guard Rails :—

File	1.6	2.3	2.11	3.9	Spacing of stanchions	4.0	Stinger plate	9" above deck
Fore	1.6	2.3	2.11	3.9	"	4.5	"	8"
aft	1.5	2.2	2.11	3.8	"	4.0	"	8"

Particulars of Gangways, Lifelines, etc. :—

None

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>Bridge space</i>	<i>177' 5"</i>	<i>4' 5"</i>	<i>3' 1 1/2" x 1' 2"</i>	<i>3</i>	<i>11</i>	<i>36</i>
Forward Well						

State position of each freeing port (F. and A. position and height above deck edge) } *After Well: Bridge space 7' 4"; 72' 7" - 142' 11"* *9" above decks.*

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — *Stings steel shutters*

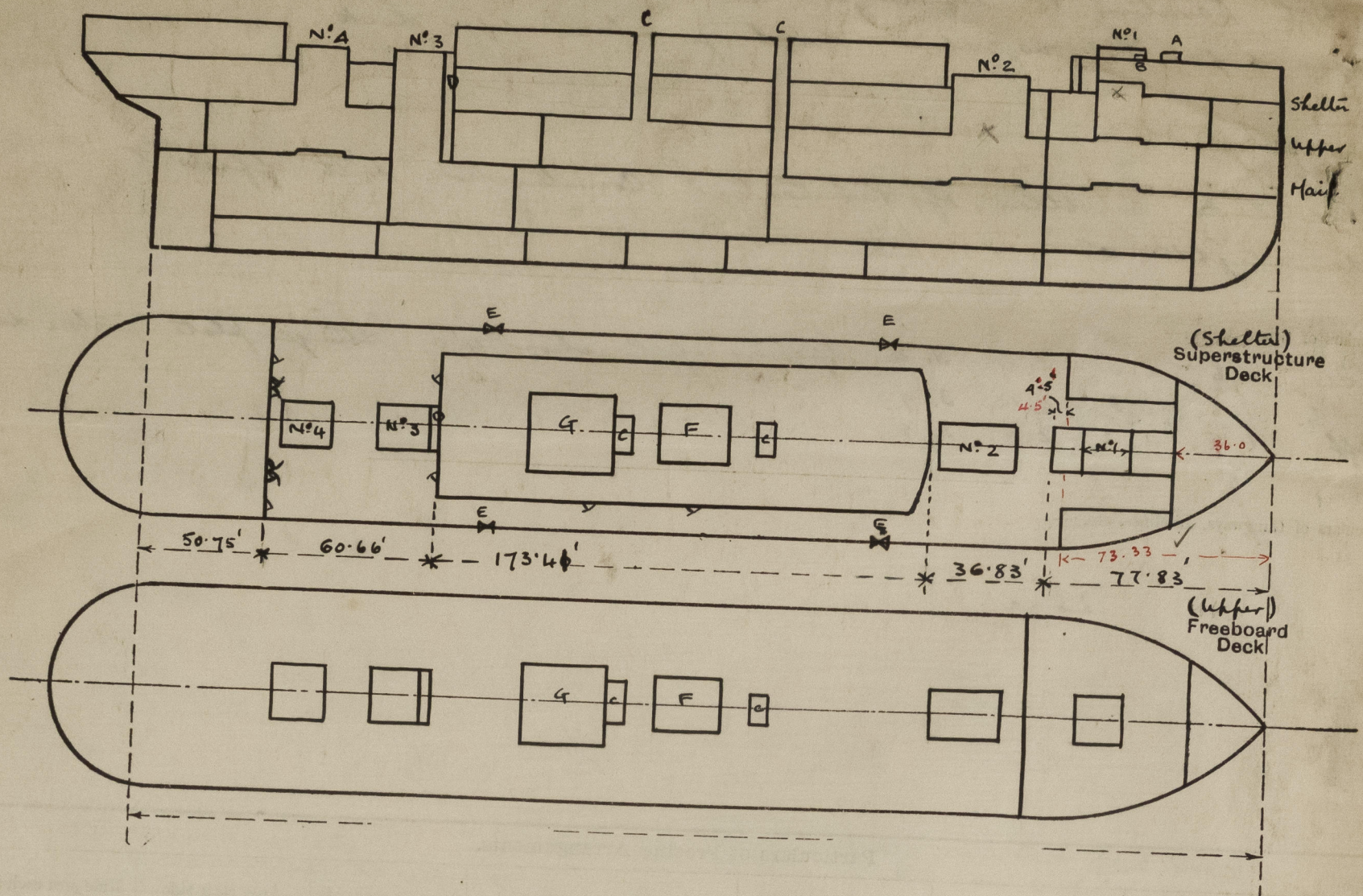
Additional area where sheer is less than standard.

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	-	$\frac{3}{8}$ "	$3 \times 3 \times \frac{3}{8}$ "	29"	-	$5' 6" \times 3' 8"$ $5' 6" \times 2' 2"$	12"	7' 6"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	$\frac{3}{8}$ "	$\frac{1}{4}$ "	$4 \times 3 \times \frac{1}{16}$ "	42"	Bushels T. & B.	$5' 3 \times 2' 9 \frac{1}{2}$ "	12"	8' 0"
Bridge, Forward Bulkhead	-	$\frac{3}{8}$ "	Ultimate Bulkhead $4 \times 6 \times 3 \times \frac{3}{8}$ "	$31 \frac{1}{2}$ "	B.B. from bushels T. & B.	-	-	8' 0"
Forecastle Bulkhead ... open ...	-	$\frac{1}{16}$ "	$3 \times 3 \times \frac{3}{8}$ "	60"	-	Open	-	7' 6"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Enclosed by steel deckhouse							
Exposed Machinery Casings on Super-structure Decks								
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	5. Tack doors $1\frac{3}{4}"$ frames, $1"$ panels. Operated both sides.
Raised Quarter Deck Bulkhead ...	
Bridge ^{House} After Bulkhead	2. Tack doors - " - " - " - "
Bridge ^{House} Forward Bulkhead	open sides.
Forecastle Bulkhead	open. Within Forecastle all openings have wood doors, operated both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	Inclosed by steel deckhouse.
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Bridge Bulkhead & Side Deckhouses on Finch Deck Ships ...	1 door, hatch, $5' \times 2-8\frac{1}{2}''$. Only entrance to stowhold. See 15. Operated both sides. 1 " " $5'-3 \times 2-8\frac{1}{2}''$ " " - Exit to engine room. See 16.

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 shewn on the following sketches:—



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

- A. Steel skylight 1/2 3' class. 7'10" x 5'0" x 9" size.
- B. " " " Crew Berth 3'7" x 3'6" x 26"
- C. Trunked coal chutes from hold deck.
- D. " 1/2 refrigerated space + ship's food stores.
- E. Gangway doors.
- F. Boiler casing
- G. Engine "

Vessel now specially surveyed & examined in drydock.
Deadweight scale.

18'5" - 3000 tons; 19'6³/₄" - 3500; 20'8" - 4000; 21'9" - 4500; 22'7" - 4900;
13'6" - 36 tons; 16'10"; 37 tons; 18'7" - 37.5; 20'7¹/₂" - 38; 21'8" - 38¹/₄.

Builder's name and yard number. *A. Stephens & Sons, Ltd. Glasgow. N^o 427*

Names of sister ships.

Owners Cia. Nacional de Navegação.

Fee £ _____ : _____ : _____ Received by me _____

$$\begin{array}{r} 9390 = 2360 \checkmark \\ \underline{56} \checkmark \\ 9446 \checkmark \\ \underline{47} \checkmark \\ 9399 \checkmark \end{array}$$

22.95 ✓
17 Dec ✓
23.12 ✓

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