

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~ *Passenger Certificate River Steamer*

having *Nil* (Type of Superstructures.)

Port of Survey *London*

Date of Survey *24<sup>th</sup> Oct 1932*

Name of Surveyor *C. H. Stocks*

Ship's Name *S.S. "SUN II"* Nationality and Port of Registry *British London* Official Number *129010* Gross Tonnage *199* Date of Build *1909-6*

Moulded Dimensions: Length *100.5* Breadth *25.6* Depth *12.0*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *460* tons

Coefficient of fineness for use with Tables *.621* *.68 lowest in Tables*

Particulars of Classification *+100 A1. For Towing Purposes*  
*S.S. Act. No. 3-11-30 S.S. Gen. No. 2-29-1*

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	12.00	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	25.5
Stringer plate	.03	(12.10 - 6.66) .767 =	4.17	Standard Round of Beam = $\frac{B \times 12}{50}$	6.12
Sheathing on exposed deck <i>2 1/2"</i>		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	9
$T \left( \frac{L-S}{L} \right) = 21 \times \frac{33.33}{99.75} =$	.07	If restricted by superstructures		Difference	2.88
Depth for Freeboard (D) =	12.10			Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{2.88}{4} = .72$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...					

*Flush Deck*

Standard Height of Superstructure *6.0*

" " R.Q.D.

Deduction for complete superstructure

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

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

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

Percentage from Table, Line A.  
(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 = *Nil*

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	19.97	1	19.97	31.00	19.97	1	19.97
1/4 L from A.P. ...	8.89	4	35.56	16.00	8.89	4	35.56
3/4 L " ...	2.20	2	4.40	6.50	2.20	2	4.40
Amidships ...		4				4	
3/4 L from F.P. ...	4.39	2	8.78	-3.00	-3.00	2	-6.00
1/4 L " ...	17.78	4	71.12	2.00	2.00	4	8.00
F.P. ...	39.95	1	39.95	32.00	32.00	1	32.00
Total ...			179.78				93.93

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( 75 - \frac{S}{2L} \right) = \frac{85.85}{18} \times .75 = +3.58$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

*+1.50*

Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *Ft.*

Summer freeboard =

Moulded draught (d) =

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

Addition for Winter North Atlantic Freeboard (if required) =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

+	-
4.17	
3.58	
	.72
	.84
77.5	1.56
Summer Freeboard = 17.66	

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 " " ...

Tropical Line " " ...

Winter Line below " " ...

Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...

1906 freeboards reassigned

# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECK									
Description of Hatchway		1	2	3	4	5	6	7	8
Dimensions of Hatchway		3'5" x 4'11"	5'6" x 7'6"	3'1/2" x 1'8"					
COAMINGS	Height above Deck	2'1/2"	3'0" x 5'3/4"	2'2"					
	Thickness	3/32"	3/32"	3/32"					
	Sides	3/32"	3/32"	3/32"					
	Ends	3/32"	3/32"	3/32"					
	Stiffeners	✓	✓	✓					
HATCH BEAMS									
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
	Bearing Surface								
HATCH COVERS									
HATCH COVERS	Material	W.P.	W.P.	W.P.					
	Thickness	2 1/4"	2 1/4" (5'6")	2 1/4"					
	How fitted	7/8"	7/8"	7/8"					
	Bearing Surface	1 3/4"	1 3/4" x 2 1/2"	1 3/4"					
Spacing of Cleats		22-29	23-42	24					
Number of Tarpaulins		2	2	2					
*Are wood fore and afters steel shod at all bearing surfaces? Are battens and wedges efficient and in good condition? Are tarpaulins in good condition and in accordance with rule requirements? Are lashings provided in accordance with rule requirements?									

Particulars of fiddle, funnel and ventilator coamings:— *Of substantial construction & efficient condition.*  
*Fiddle top openings fitted with gratings & steel linged covers.*  
*Four gooseneck vents 12" dia 10" x .25"*

Particulars of Flush Banker Scuttles:—

*Nil.*

Particulars of Companionways:—

*For Comp: Entrance by steel linged door 3'11" x 1'10" operated both sides*  
*Sill 18" — in steel deckhouse forward.*  
*Aft Comp: Deck opening 6'0" x 5'0" Steel casing 31" x .25" — 2" lead top fitted*  
*with 2'5" x 2'2" sliding top 1" lead and 1 1/4" lead door 2'1" x 1'8" — Sill 14 3/4"*  
*operated both sides.*  
*Entrance to Engine Room: from top of E.R. casing — Sliding 1" lead top 2'5" x 2'3"*  
*operated both sides.*

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

*All S.N. type { 3 1/2" to 5 1/2" dia Height 16 1/2" to 21 1/2" x .25" Efficient*  
*1" dia — 19" to Counter space closing*  
*2 1/2" dia — 18 1/2" — Aft Store. appliances.*  
*Ordinary type — 6" dia Height 24" x .25" to Aft Cabin*

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

*All S.N. type 1 1/2" to 2" dia Aft peak 19" x .25"*  
*Fore peak 9" x .25"*  
*Deep tank 12" x .25"*

*Efficient No temporary closing appliances.*

Particulars of Gangway Cargo and Coaling Ports:—

*Nil.*



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Particulars of Scuppers and Sanitary Discharge Pipes:—

Sanitary discharges fitted with storm valves.  
discharging below water by ejector pump with screw down valves.

Particulars of Side Scuttles:—

Nil

Particulars of Guard Rails:—

25 Bulwarks fore & aft 36" high with 5" B.A. Lang. stiff at mid depth & supported by 24" solid stays spaced about 5'0"

Particulars of Gangways, Lifelines, etc.:—

Nil

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>Fore &amp; Aft</i> ...	-	36"	2'0" x 1'0"	4	8'0" $\frac{1}{2}$ "	
Forward Well ...	-	also 4 flush deck scuppers 6" x 4" in midship & length				

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.

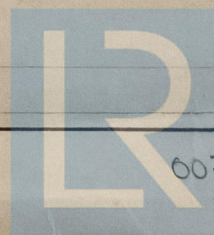
*See Page 4 Sill 8*  
*Steel lugged shutters with 1 inch bolts*  
*Noting: Freeing ports are temporarily closed by bolted cover plates against damage whilst on repair work - removed at sea.*

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 Free-board or Raised Quarter Deck ...	30	25	E.R. 3 x 3 x 30 B.R. 2 1/2 x 2 1/2 x 25	36-45 30-33	Nil B 4" top	27 x 29 19" x 35"	32" 19"	32" 4'9" - 4'7"
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 ...	-
Raised Quarter Deck Bulkhead ...	-
Bridge, After Bulkhead ...	-
Bridge, Forward Bulkhead ...	-
Forecastle Bulkhead ...	-
Exposed Machinery Casings on Free-board or Raised Quarter Deck ...	Steel Lugged doors & threshold operated both sides.
Exposed Machinery Casings on Super-structure Decks ...	-
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	-
Deckhouses on Flush Deck Ships ...	-

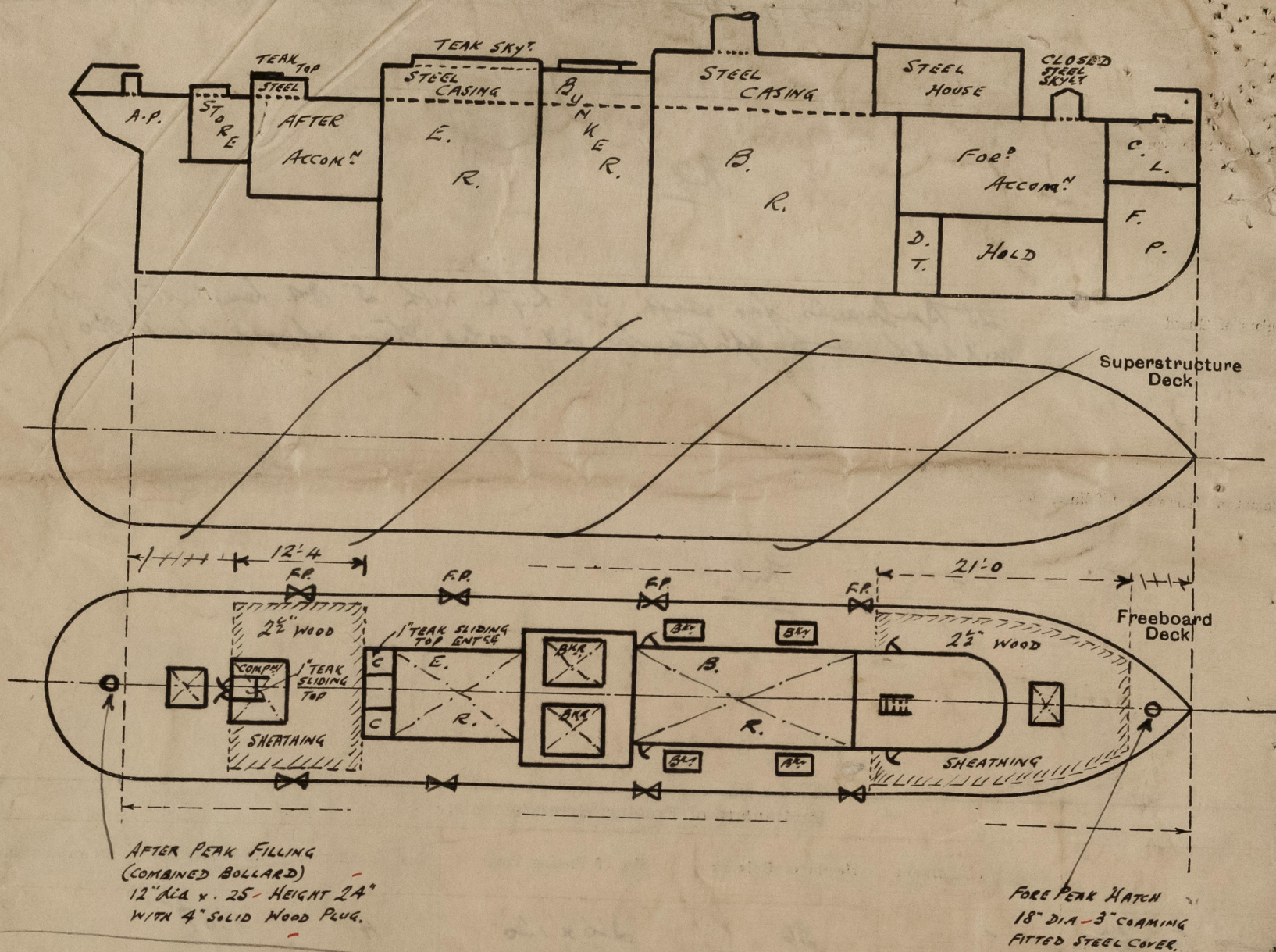


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



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

Freeboard survey afloat.  
S.S. 2-1 N: 3 in hand, remarking of freeboard to be deferred  
for completion within a week or two.

Builder's name and yard number.

Men<sup>rs</sup> Earle's S. B. & Co. L<sup>ts</sup> N: 556

Names of sister ships.

SUN III - Yard N: 557

Owners.

W. H. J. Alexander L<sup>ts</sup>

Fee £

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Received by me.

(26 OCT 1932)



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