

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **31892**
(For London Office only)**2200 L****18 APR 1933**

Computation of Freeboard for Steamer, **BRIDGE & FORECASTLE**
having **BRIDGE & FORECASTLE**

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"SCHELDE"	DUTCH ROTTERDAM		359	1926/11

Moulded Dimensions: Length **41.15'** Breadth **7.62'** Depth **4.42'**
Moulded displacement at moulded draught = 85 per cent. of moulded depth **420.5 M³**
Coefficient of fineness for use with Tables **.612** (**.68** LOWEST IN TABLE TO USE)

Port of Survey **MAASSLUIS**
Date of Survey **11-4-33**
Name of Surveyor **O. Lodder** ✓
Particulars of Classification **+100 A1**
FOR TOWING SERVICES
I.S. N° 1-31

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	4.420	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	7.62
Stringer plate	9	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times \square}{50}$	152
Sheathing on exposed deck				Ship's Round of Beam	150
$T \left(\frac{L-S}{L} \right) =$	$76 \times \frac{18.89}{41.15} = 35$			Difference	DEFICIENT 2
Depth for Freeboard (D) =	4.464	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$= \frac{2}{4} \times .4378 = \text{NIL}$

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 ...					
" overhang ...					
Bridge OPEN ...	14.25	7.13	2.110	-	7.13
" overhang aft ...					
" overhang forward					
F'cle OPEN ...	3.66	3.66	2.034	-	3.66
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	17.91	10.79			10.79

Standard Height of Superstructure	1830
" " R.Q.D.	
Deduction for complete superstructure	495
Percentage covered $\frac{S}{L} =$	43.52
" " $\frac{S_1}{L} =$	26.22
" " $\frac{E}{L} =$	26.22
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	13.11
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	16.62
Interpolation for bridge less than 2L (if required)	$13.11 + \frac{7.13}{8.23} \times 3.51 = 16.15$
Deduction =	$.1615 \times 495 = 80$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	597	1		597	487	487	1		487
$\frac{1}{2}L$ from A.P. ...	265	4		1060	376	376	4		1504
$\frac{3}{4}L$ " ...	66	2		132	114	114	2		228
Amidships ...	-	4		-	-	-	4		-
$\frac{3}{4}L$ from F.P. ...	133	2		266	119	119	2		238
$\frac{1}{2}L$ " ...	531	4		2124	554	554	4		2216
F.P. ...	1194	1		1194	1600	1600	1		1600
Total ...				5373					6543

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} = \frac{1200 - 5373}{18} = \frac{-4173}{18} = -231.83$$

If limited on account of midship superstructure.

$$0 \times 35 = \text{NIL}$$

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.

$$\begin{aligned} \text{Depth to Freeboard Deck} &= 4.505 \\ \text{Summer freeboard} &= 460 \\ \text{Moulded draught (d)} &= 4.045 \end{aligned}$$

Deduction for Tropical freeboard and addition for

$$\text{Winter freeboard} = \frac{d}{4.8} = 8 \text{ c.m.}$$

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

$$T =$$

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

AT PRESENT S.L.W.L.

$$\Delta = 834 \text{ M}^3$$

$$M^3 / \text{c.m.} = 2.66$$

TABULAR FREEBOARD

Correction for coefficient

Depth Correction	149
Deduction for superstructures	80
Sheer correction	
Round of Beam correction	
Correction for Thickness of Deck amidships	41
Other corrections, scantlings, etc.	

+	-
190	80
41	
110	
Summer Freeboard =	457

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Deck:— **46 c.m.**

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	"

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	N ^o 1	N ^o 2	N ^o 3						
Dimensions of Hatchway	16'8" x 20'0"	20'0" x 17'0"	10'2" x 6'0"						
COAMINGS	Height above Deck	3'5"	2'5"	4'0"					
	Thickness	8	8	6					
	Stiffeners								
	Brackets, Stays								
HATCH BEAMS	Number	ONE							
	Spacing	8'4"							
	Scantling and Sketch	T 75 x 75 x 10							
	Bearing Surface	75							
FORE AND AFTERS	Number		ONE						
	Spacing		8'5"						
	Unsupported Lengths		16'5"						
	Scantling and Sketch		T 130 x 75 x 10						
HATCH COVERS	Material	PINE	PINE	STL. PLATED					
	Thickness	75	75	PLATE					
	How fitted	F. B. A.	TRANSV.						
	Bearing Surface	75	75	SECURED					
Spacing of Cleats	25-30"	24"	BY LOCKING BAR.						
Number of Tarpaulins	2	2							

*Are wood fore and afters steel shod at all bearing surfaces? ☒
 Are battens and wedges efficient and in good condition? YES.
 Are tarpaulins in good condition and in accordance with rule requirements? YES.
 Are lashings provided in accordance with rule requirements? ☒

Particulars of fiddley, funnel and ventilator coamings:— Fiddley, funnel & ventilator coamings in efficient condition.
 Fiddley gratings covered by strong steel hinged covers.
 Strong steel engine room skylight on after deck with efficient steel hinged flap.

Particulars of Flush Bunker Scuttles:— In upper deck:
 6 scuttles on both sides. Diam. 19"
 Strong covers with screw joint.
 No chain attachment or equivalent arrangement.

Particulars of Companionways:— To crew space aft: strong st. companionway. Sill of opening 16". All doors operated from both sides. All sliding top.
 To engine room: at after end of engine room skylight: sill 21". All doors operated both sides.
 To crew space fore: Fore end of central deckhouse: 4 strong steel doors operated from both sides. Height of sills 16".

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
 On ventilator 9" dia on top of after skylight. Height 30" above deck.
 2 do 9" " " " skylight aft E.R. skylight, height 40" above deck.
 1 " 9" " " " in fore well. Height 41" above deck.
 Efficient steel caps on board.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
 In after well: to A.P. tank 1 air pipe 2 1/2" x 3"
 In panop. forward: to E.W. tanks 2 air pipes 3 1/2" x 3"
 On forecandle: to F.P. tank 1 air pipe 1 1/2" x 3" (well protected)

Efficient closing appliances provided

Particulars of Gangway Cargo and Coaling Ports:—

Particulars of Scuppers and Sanitary Discharge Pipes —

None from spaces below freeboard deck.

Particulars of Side Scuttles:—

None from spaces below freeboard deck.
 None in bridge or forecandle side plating.

Particulars of Guard Rails:—

On forecandle: Height 39"; 3 rods; stanchions 3'-4" apart
 On bridge: do.
 Bulwark in wells of strong construction and efficiently supported.

Particulars of Gangways, Lifelines, etc.:—

Provision made for rigging lifelines which are available in any part of the ship which may have to be used by the crew in the regular working of the vessel.

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	19.35	1.00	430 x 480 (1) 460 x 510 (2)	3	1.126	1.194
Forward Well	3.89	1.34	430 x 480 in well 430 x 480 in passage	2	.701	.726

State position of each freeing port ... After Well:— Height above deck 170"
 (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:— all freeing ports fitted with shutter and one horizontal bar.
 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								
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	4"	6"	490 x 65 x 7 1/2"	460	Brackets at top	4'10" x 2'0"	15"	6'-10"
Deckhouses on Flush Deck Ships								

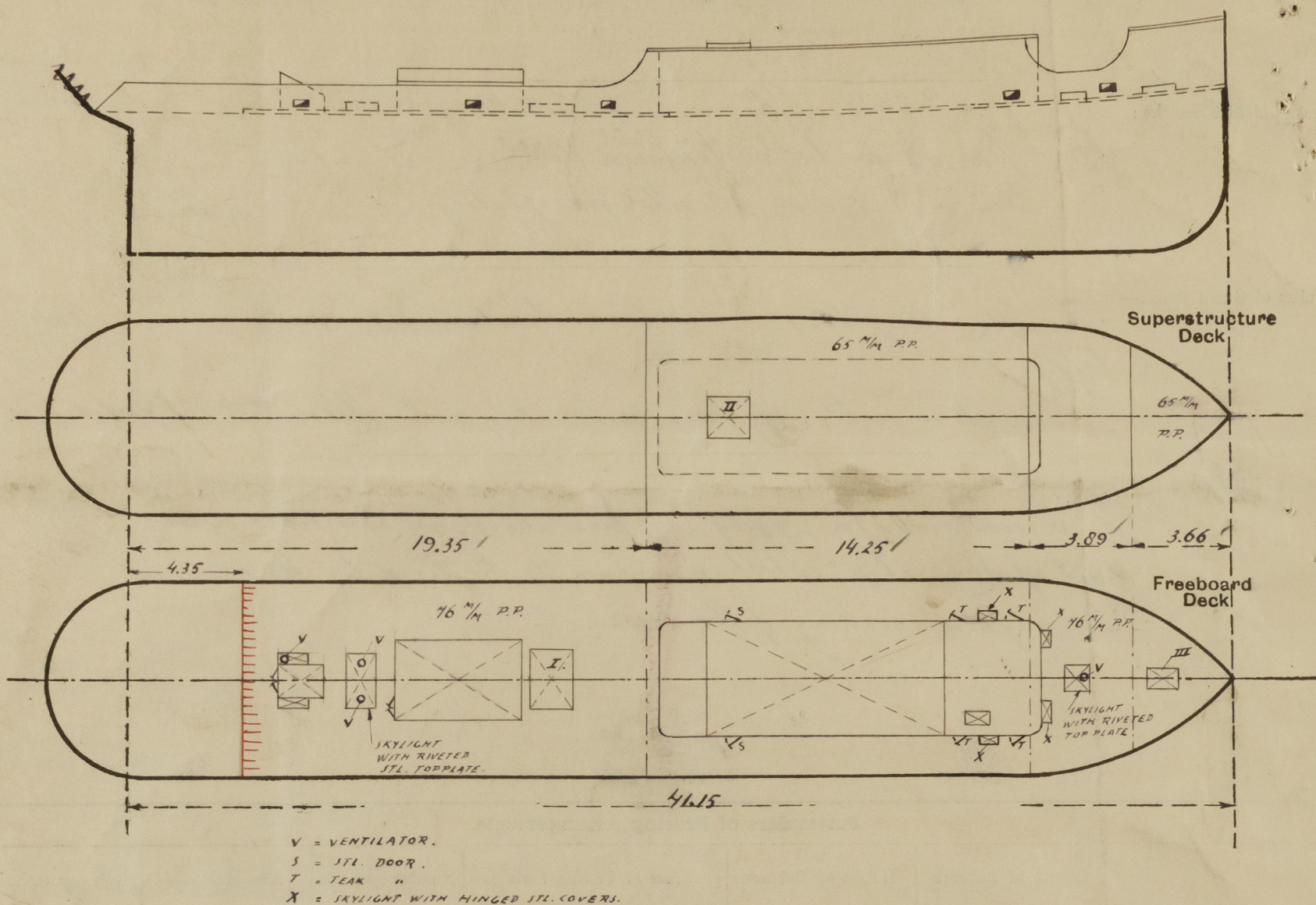
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	open.
Bridge, Forward Bulkhead	open.
Forecastle Bulkhead	open.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	steel doors operated from both sides.
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 shewn on the following sketches:—



Freeboard survey held afloat.

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

Builder's name and yard number *Machine fabriek en Scheepswerf van P. Smit Jr. n° 400.*

Names of sister ships

Owners *N.V. Internationale Sleepdienst Maatschappij.*

Fee *61.20* : *Will be* Received by me *Chooder.*

Exp. 3.-



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Foundation