

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

25 MAY 1932

Index. No. 32400
(For London Office only.)

12604

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having *Shelterdeck with tonnage opening*Port of Survey *Amsterdam*

(Type of Superstructures.)

Date of Survey *18 May 1932*

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<i>S.S. "Boskoop"</i>	<i>Dutch</i> <i>AMSTERDAM</i>	<i>5800</i>	<i>5530</i>	<i>1927</i> <i>4 mo</i>

Name of Surveyor *H. P. Jonker*

Moulded Dimensions: Length	<i>128.000</i>	Breadth	<i>17.680</i>	Depth	<i>9.144 m</i>
Moulded displacement at moulded draught	<i>121.920</i>	= 85 per cent. of moulded depth <i>124.66 M</i>			
Coefficient of fineness for use with Tables	<i>.751</i>	PER INCH IN WAY L.W.L. <i>42.6 M</i>			

Particulars of Classification *+100 A1*

Depth for Freeboard (D)	<i>9.154</i>
Moulded depth	<i>9.144</i>
Stringer plate	<i>10 1/2</i>
Sheathing on exposed deck	<i>✓</i>
$T \left(\frac{L-S}{L} \right) =$	
Depth for Freeboard (D) =	<i>9.154</i>

Depth correction	
(a) Where D is greater than Table depth (D-Table depth) R =	<i>8.33 (9.154 - 8.130) x 300 = 256 M</i>
(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	
If restricted by superstructures	

Round of Beam correction	
Moulded Breadth (B)	<i>17.680 m</i>
Standard Round of Beam = $\frac{B \times 12}{50}$	<i>353</i>
Ship's Round of Beam	<i>0</i>
Difference	<i>Deficient 353</i>
Restricted to	
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	<i>= 353 x .0083 = +.001 M</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height in m	Height Correction	Effective Length (E)
Poop enclosed	<i>6100</i>	<i>6100</i>	<i>2280</i>	-	<i>6100</i>
" overhang	<i>806</i>	<i>403</i>	<i>see sketch</i>		<i>403</i>
R.Q.D. enclosed					
" overhang					
Bridge enclosed	<i>113402</i>	<i>113402</i>	<i>2290</i>	-	<i>113402</i>
" overhang aft			<i>and as per sketch</i>		
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward	<i>1613</i>	<i>1007</i>	<i>3390</i>	-	<i>1007</i>
Tonnage opening aft	<i>2410</i>				
" forward					
Total	<i>121920</i>	<i>120912</i>			<i>120912</i>

Standard Height of Superstructure *2.289*R.Q.D. *✓*Deduction for complete superstructure *1.067*Percentage covered $\frac{S}{L} = 100.00$ $\frac{S_1}{L} = 99.17$ $\frac{E}{L} = 99.17$ Percentage from Table, Line A. (corrected for absence of forecastle (if required)) *98.97*

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

Interpolation for bridge less than 2L (if required)

Deduction = *1.067 x 98.97 = -1.056 M*

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate in m	Effective Ordinate	S	Product
A.P.	<i>1269</i>	1	<i>1269</i>	<i>257</i>	<i>1359</i>	1	<i>1359</i>
1/4 L from A.P.	<i>565</i>	4	<i>2260</i>	<i>0</i>	<i>609</i>	4	<i>2436</i>
2/4 L	<i>139</i>	2	<i>278</i>	<i>0</i>	<i>154</i>	2	<i>308</i>
Amidships	-	4		<i>0</i>	-	4	
3/4 L from F.P.	<i>279</i>	2	<i>558</i>	<i>0</i>	<i>308</i>	2	<i>616</i>
1/4 L	<i>1130</i>	4	<i>4520</i>	<i>5</i>	<i>1238</i>	4	<i>4952</i>
F.P.	<i>2539</i>	1	<i>2539</i>	<i>1490</i>	<i>2896</i>	1	<i>2896</i>
Total			<i>11424</i>				<i>12567</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{1143}{18} (.75 - .50) = -.016 M$

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	=	<i>9.154</i>
Summer freeboard	=	<i>1.096</i>
Moulded draught (d)	=	<i>8.058</i>

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{48}$ inches = *168 m/m*Addition for Winter North Atlantic Freeboard (if required) = *Nil*

Deduction for Fresh Water.

Displacement in salt water at summer load water line = *26.44* $\Delta = 13224$

Tons per inch immersion at summer load water line

T = *48.0*Deduction = $\frac{\Delta}{40 T}$ inches= *6.88*= *175 m/m*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient *751 + 680 = 1431**1.36**1.36*Depth Correction ... *256*Deduction for superstructures ... *1.056*Sheer correction ... *0.016*Round of Beam correction ... *.001*

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

*257 1.072 - .815*Summer Freeboard = *1.096 metres*

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

Tropical Fresh Water Line above Centre of Disc	... <i>34 cm</i>	Tropical Fresh Water Freeboard	... <i>76</i>
Fresh Water Line	... <i>17</i>	Fresh Water	... <i>93</i>
Tropical Line	... <i>17</i>	Tropical	... <i>93</i>
Winter Line below	... <i>17</i>	Winter	... <i>127</i>
Winter North Atlantic Line	... <i>17</i>	Winter North Atlantic	... <i>127</i>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECK									
HATCHWAYS ON SUPERSTRUCTURE DECK									
HATCHWAY ON FREEBOARD DECK									
Description of Hatchway	HATCHWAY N°1	HATCHWAY N°2	BUNKER	HATCHWAY	HATCHWAY	HATCHWAY	HATCHWAY	HATCHWAY	HATCHWAY
Dimensions of Hatchway in m/m	8910 x 5020	8910 x 5020	1610 x 5020	3134 x 1640	8910 x 5020	8910 x 5020	8910 x 5020	8910 x 5020	8910 x 5020
COAMINGS	Height above Deck in m/m	460	460	230	450	230	230	230	230
	Thickness	11	11	230	230	230	230	230	230
	Sides	11	11	230	230	230	230	230	230
	Stiffeners	11	11	230	230	230	230	230	230
HATCH BEAMS	Number	4	4	4	4	4	4	4	4
	Spacing	1813	1803	1803	1803	1803	1803	1803	1803
	Scantling and Sketch	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11
	Top Angles	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11
FORE AND AFTERS	Bottom Angles	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11	100 x 75 x 11
	Bearing Surface	90	90	90	90	90	90	90	90
	Number	4	4	4	4	4	4	4	4
	Spacing	1813	1803	1803	1803	1803	1803	1803	1803
HATCH COVERS	Material	PINE	PINE	PINE	STEEL	PINE	PINE	PINE	PINE
	Thickness	25	25	25	10	25	25	25	25
	How fitted	LONGITUDINAL	LONGITUDINAL	LONGITUDINAL	COVER	LONGITUDINAL	LONGITUDINAL	LONGITUDINAL	LONGITUDINAL
	Bearing Surface	45	45	45	10	45	45	45	45
Spacing of Cleats									
Number of Tarpaulins									
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: — Fiddle hatch on casing top, 2000 x 400 angle coaming 65 x 65 mm provided with steel cover 64 mm thick permanently attached in their proper position. On casing top two ventilators, 4500 x 900 x 6 1/2 mm to stove hold. Four ventilators 4500 x 400 mm diam x 6 1/2 mm to engine room. One bunker hatch 4000 x 1200 steel coaming 250 x 10 mm hatches 65 mm pine cleats, battens, wedges, tarpaulins etc all as required.

Particulars of Flush Bunker Scuttles: — One hatchway on superstructure deck forward 450 x 450 mm coaming 610 x 10 mm and one 650 x 400 mm coaming 610 x 10 mm hatches 65 mm pine cleats, battens, wedges, tarpaulins etc all as required.

Particulars of Companionways: — one on aftership to accommodation in Poop space. steel deck house, plating 4 mm stiffeners 405 x 65 x 4 mm spaced 610 mm wood door 1580 x 610 mm 38 mm teak, sills 12" above wood deck, wood deck 70 mm teak only fitted in way accom in Poop space door closed and operated from both sides.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks: — To store rooms above forepeak 2 ventilators 910 x 255 mm diam x 8 mm. To hold 20 ventilators, 910 x 480 mm diam x 12 mm. To store rooms amidships 2 ventilators 910 x 200 mm diam x 10 mm. To tunnel recess one ventilator 910 x 200 mm diam x 10 mm. To accommodation in Poop space 8 ventilators 450 mm x 130 mm diam x 8 mm. Two goose neck ventilators 660 x 125 mm diam. All ventilators are provided with wooden hatches and canvas covers all as required.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks: — One air pipe to fore peak tank 610 x 90 mm diam. To double bottom tanks 12 air pipes 720 to 610 x 100 mm diam, 4 air pipes 420 to 610 mm x 90 mm diam, 4 air pipes 460 to 400 mm x 45 mm diam, 4 air pipes 400 mm x 60 mm diam, 4 air pipes 400 mm x 45 mm diam. To outboard bunkers on bunker hatch, 4 air pipes 610 mm x 125 mm diam. To afterpeak tank one air pipe 400 x 45 mm diam. Openings of all air pipes are closed with canvas covers.

Particulars of Gangway Cargo and Coaling Ports: —

508KOOP

Particulars of Scuppers and Sanitary Discharge Pipes — Superstructure deck discharged over deck. 9 scuppers SB and PS. Freeboard deck (bridge space) discharged through ship side ± 230 mm below freeboard deck 5 scupper pipes on SB and PS. Tonnage with one scupper pipe on SB and PS. All scupper pipes are provided with storm valves as required. W.C. crew on Poop deck discharged through ship side below freeboard deck one storm valve fitted. W.C. officers on freeboard discharged through ship side below freeboard deck one storm valve fitted. Particulars of Deck Scuttles — Superstructure deck discharged through ship side above freeboard deck one storm valve fitted. All wash places discharged through ship side above freeboard deck without storm valve.

PARTICULARS OF SIDE SCUTTLES — No side scuttles to spaces below freeboard deck. Side scuttles to spaces below superstructure deck are fitted with efficient inside clean lights permanently attached in their proper position so that they can be effectively closed and secured watertight.

BULWARK ON SUPERSTRUCTURE DECK						
	LENGTH OF BULWARK	HEIGHT OF BULWARK	SIZE OF FREEING PORT	NUMBER ON EACH SIDE	AREA EACH SIDE	RULE AREA EACH SIDE
TORWARD	54068	1100	2020 x 250 to 320	14	89.50	19.00
AFT	37534	1100	2200 x 250	8	49.30	12.35

Particulars of Gangways, Lifelines, etc.: — F. and A. position freeing ports see sketch. Height above deck edge 260 mm.

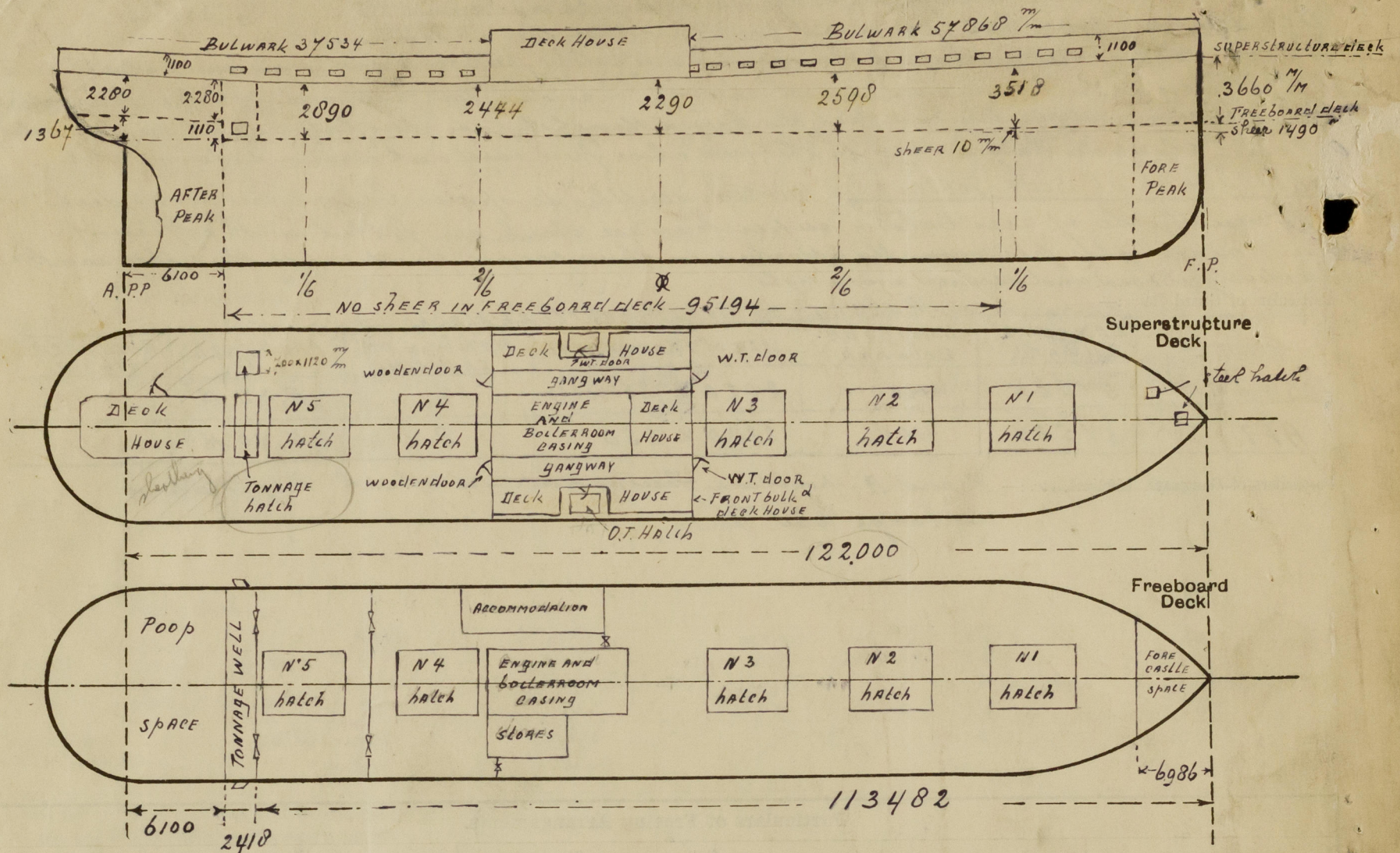
Particulars of Freeing Arrangements.						
	Length of Bulwark in m/m	Height of Bulwark in m/m	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	2410	3390	450 x 450 mm	one	0.2	0.2
Forward Well						
State position of each freeing port. After Well: — F. and A. position see sketch, height above deck edge 260 mm. (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: — shutter fitted.						
Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming in m/m	Plating in m/m	Stiffeners	Spacing in m/m	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	260 x 4	4	100 x 75 x 8	610	none			3390
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	1020 x 4	4	100 x 75 x 8	720	none	1320 x 920	500	3350
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	450 x 9	8 1/2	75 x 75 x 8	806	none			2290
Deckhouses on Freeboard Deck	450 x 8	8	150 x 75 x 9	600 to 800	angle lugs	1520 x 690	580	2280
Superstructure AFTER BULKHEAD	450 x 8	8	100 x 75 x 8	720	none	1520 x 860	450	2280

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	no openings
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	portable planks 70 mm pine fitted in channel bars for the full height
Bridge, Forward Bulkhead	
Forecastle Bulkhead	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	no openings
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	no openings
Deckhouses on Freeboard Deck	W.T. steel hinged door capable of being manipulated from both sides
Superstructure AFTER BULKHEAD	strong hinged wood door 38 teak

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:—

ALL DIMENSIONS IN M.M.



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

Sheer FREEBOARD DECK ON A.P. is taken from an imaginary line project from the freeboard deck parallel to the superstructure deck from Poop bulk head till A.P. See sketch above.

SHEER SUPERSTRUCTURE DECK	
A.P.	1357
1/6 L from A.P.	609
2/6 L " "	154
AMIDSHIPS	0
2/6 from F.P.	308
1/6 " "	1238
F.P.	2860

Drift 25' BK 12401 int. Δ 47.44 TPI
26' 12972 47.83

85% x 3000

= 25.50

25-7 1/2 BK

12972

- 4 1/2 x 47.74 =

- 215

12757

- 64

12693

26-5 1/4 = 12972

+ 5 1/4 x 47.9 = + 252

13224

Builder's name and yard number **X C. van der Giessen & Zonen's Scheepswerven, N.V., Yard No. 575**

Names of sister ships

Owners **Koninklijke Nederlandsche Stoomboot My.**

Fee **164**

Received by me **H. P. Jonker**

exp. 12



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