Rpt. C.11.

No. 13269

Index. No. 34537
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

18 SEP 1934

Computation of Freeboard for Steamer, ~~Sailing Ship~~, Tanker

having FORE CASTLE, BRIDGE AND POOPDECK PASSENGER SHIP.
(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
M.S. "BLOEMFONTEIN"	Dutch The Hague			1934

Moulded Dimensions: Length 138,469 Breadth 19,200 Depth 11,786 M.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18.485 M.³ ~~tons~~
Coefficient of fineness for use with Tables .694

Port of Survey Amsterdam
Date of Survey 15th September '34
Name of Surveyor H. P. Jonker
Particulars of Classification ✠100A1

Depth for Freeboard (D) M.

Moulded depth ... 11,786
Stringer plate ... .011
Sheathing on exposed deck $T\left(\frac{L-S}{L}\right)$ = 76 × $\frac{16.38}{138.47}$ = 9
Depth for Freeboard (D) = 11806

Depth correction

(a) Where D is greater than Table depth 2.575
(D−Table depth) R = 8.23 (11.806 − 9.231) 30
= +643
(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) 19,200 M.
Standard Round of Beam = $\frac{B \times 1}{50}$ = 384
Ship's Round of Beam = 380 m/m
Difference 4 m/m deficient
Restricted to
Correction = $\frac{Diff^e}{4} \times \left(1-\frac{S_1}{L}\right)$ = $\frac{4}{4}$ × .4584 = Nil.

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S) m/m	Equivalent Enclosed Length (S_1)	Height m/m	Height Correction	Effective Length (E)
Poop enclosed	9.800	9.80	2342	✓	9.80
„ overhang	~~8.13~~				
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed... ...	54.470	54.47	2460 + Lifosilo	✓	54.47
„ overhang aft ...	20.31				
„ overhang forward	80				
F'cle enclosed	10.710	10.71	2280	✓	10.71
„ overhang	~~8.30~~				
Trunk aft					
„ forward					
Tonnage opening aft ...					
„ „ forward		✓			✓
Total	74.98	74.98			74.98

Standard Height of Superstructure 2290
„ „ R.Q.D. ✓
Deduction for complete superstructure 1067
Percentage covered $\frac{S}{L}$ = 54.16%
„ „ $\frac{S_1}{L}$ = 54.16%
„ „ $\frac{E}{L}$ = 54.16%
Percentage from Table, Line A. /
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. 40.16%
(~~corrected for absence of forecastle (if required)~~)
Interpolation for bridge less than ·2L (if required)
Deduction = 1067 × .4016 = −428 m/m.

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	1407	1	1407	1492	1492	1	1492
$\frac{1}{6}$L from A.P. ...	625	4	2500	654	654	4	2616
$\frac{2}{6}$L „ ...	156	2	312	156	156	2	312
Amidships ...	✓	4	✓	0	✓	4	✓
$\frac{2}{6}$L from F.P. ...	313	2	626	345	345	2	690
$\frac{1}{6}$L „ ...	1251	4	5004	1359	1359	4	5436
F.P.	2815	1	2815	3061	3061	1	3061
Total ...	2663		12664				13607

$\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}}$ = Excess
$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}}$ = Excess
$\frac{\text{Length of enclosed superstructure}}{L}$ forward of amidships = > .1L
„ „ aft of „ = > .1L

Correction = $\frac{\text{Difference between sums of products}}{18}\left(\cdot75-\frac{S}{2L}\right)$ = $\frac{943}{18}$ (.75 − .2708) = −25 m/m.
.4792
If limited on account of midship superstructure. ✓
If limited to maximum allowance of 1½ ins. per 100 ft. ✓

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

Ft.
Depth to Freeboard Deck = 11797
Summer freeboard = 2450
Moulded draught (d) = 9347
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48}$ inches = 19 cms
Addition for Winter North Atlantic Freeboard (if required = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line
Δ = 17100
Tons per inch immersion at summer load water line
T = 58.9
Deduction = $\frac{\Delta}{40T}$ inches
= 7¼" − 18 cms
$\frac{d}{4}$ = 19 cms.

TABULAR FREEBOARD ~~corrected for Flush Deck (if required)~~ 2247

Correction for coefficient $\frac{.694+.68}{1.36} = \frac{1374}{1360}$ 2270

	+	−
Depth Correction ...	643	−
Deduction for superstructures ...	−	428
Sheer correction ...	−	25
Round of Beam correction ...	−	−
Correction for Thickness of Deck amidships ...	−	9
Other corrections, scantlings, etc. ...	−	−
	643	462

+ 181
Summer Freeboard = 2451

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck :— 245 cm

Tropical Fresh Water Line above Centre of Disc ...	~~38~~ cms	Tropical Fresh Water Freeboard ...	~~207~~ "
Fresh Water Line „ „ ...	19 "	Fresh Water „ ...	226 "
Tropical Line „ „ ...	~~19~~ "	Tropical „ ...	~~226~~ "
Winter Line below „ ...	19 "	Winter „ ...	264 "
~~Winter North Atlantic Line~~ „ „ ...	✓	~~Winter North Atlantic~~ „ ...	✓

28 SEP 1934

Amendments in Red as per Dutch assignment. 17.10.34

MARKING FORM 12 OCT 1934 RECEIVED

~~MARKING FORM~~ 24 JAN 1935 RECEIVED

MARKING FORM 26 OCT 1938 RECEIVED

10m,2,31

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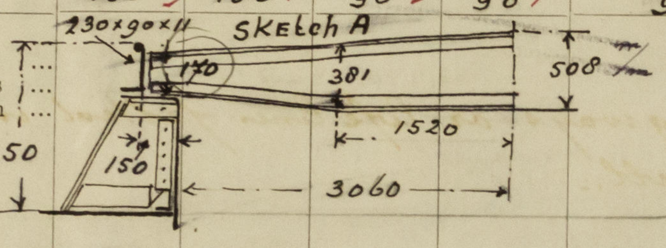
PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

	Freeboard deck in forward well		On Bridge deck trunked in till ~~freeboard deck~~	On promenade deck ~~trunked to~~ – freeboard deck	On Freeboard deck in afterwell	
Description of Hatchway	N 1	N 2	N: 3	N 4	N 5	N 6
Dimensions of Hatchway	9600 x 6120	11380 x 6120	5690 x 6120	6504 x 6120	10560 x 6120	9750 x 6120 m/m
COAMINGS: Height above Deck	850	850	780	450	850	850 m/m
Thickness: Sides	11	11	11	11	11	11 m/m
Thickness: Ends	11	11	11	11	11	11 m/m
Stiffeners	see sketch A		180x75x11		see sketch A	see sketch A
Brackets, ~~Stays~~	two	three	one		three	two
HATCH BEAMS: Number	5	6	3	3	6	5
Spacing	1627	1627	1627 and 1276	1625	1627 and 1256	1627 and 1708 m/m
Scantling and Sketch: top angles	100 x 75 x 11		100x75x11	100 x 75 x 11	100x75x11	100x75x11 m/m
plate	508 x 9 m/m		508 x 9 m/m	508 x 9 m/m	508 x 9 m/m	508 x 9 m/m
bottom angles	100 x 75x11		100x75x11	100x75x11	100x75x11	100x75x11 m/m
Bearing Surface	150	150	90 / 90	90	150	150 m/m
FORE AND AFTERS: Number, Spacing, Unsupported Lengths, Scantling* and Sketch	Sketch A					
Bearing Surface						
HATCH COVERS: Material	pine	for all hatchways the same				
Thickness	70 m/m					
How fitted	longitudinal					
Bearing Surface	72					
Spacing of Cleats	24"	for all hatchways the same				
Number of Tarpaulins	two					



*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? yes

Particulars of fiddley, funnel and ventilator coamings:— No openings in fiddley top
Motor room skylight of steel strongly constructed
Tunnel and ventilator coamings in good and efficient condition

Particulars of ~~Flush~~ Bunker Scuttles:— Bunker opening in deck house on poop deck (to Poop space) opening 680 x 400 m/m sill 150 m/m above wood deck, closed with steel hinged cover

Companion ways: on Fore castle deck to tweendecks: one hatchway 1300 x 1100 m/m coaming ∠230x90x10, strong steel W.T cover. One hatchway 1210 x 1080 m/m steel coaming 690 x 8 m/m hatches 70 m/m pine bearing surface 75 m/m battening down arrangement fitted as required.

Particulars of Companionways:— On Freeboard deck in bridge space stair openings to tweendeck 1654 x 950 m/m no coamings fitted
Companion way in forward well to tween deck, built in Fore castle bulkhead, steel W.T. door 1600 x 710 m/m sill ~~160~~ 610 m/m above wood deck
On Freeboard deck in forward and afterwell one escape hatchway 760 x 660 m/m steel coaming 620 x 11 m/m hatches 70 m/m pine bearing surface 72 m/m battening down arrangement fitted as required.
In fore castle space stair opening to tween deck 1200 x 1200 steel coaming ∠ ~~130~~ 130 x 75 x 9.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— On Freeboard deck in forward well and afterwell ventilator coamings, 915 x 610 m/m diam x 10 m/m and 915 x 230 m/m diam x 10 m/m
On Fore castle deck vent. coamings 910 x 230 m/m diam x 8 m/m on Poop deck vent. coamings 760 x 230 m/m diam x 8 m/m and goose neck ventilators 760 x 100 m/m diam On Bridge deck vent. coamings 840 x 610 m/m diam x 10 m/m and ventilator coamings 610 x (▭ 720 x 280) x 6 m/m and 610 x (▭ 360 x 280) x 6 m/m
All ventilators are provided with wooden hatches and canvas covers for closing the openings

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— Airpipes to tanks on Fore castle deck 450 x 127 diam (high)
On Freeboard deck in forward and afterwell air pipes to tanks 830 x 76 m/m diam — protected by bulwark
on Poop deck air pipes to tanks ~~450~~ 457 x 127 m/m diam
on Bridge deck to tanks air pipes 450 x 150 m/m diam, 100 m/m diam 90 m/m diam, 75 m/m diam and 65 m/m diam
All air pipes and goose neck ventilators are provided with canvas covers for closing the openings. (450 / 320)

Particulars of Gangway Cargo and Coaling Ports:— Between bridge deck and Freeboard deck on P.S one W.T. gangway door 1820 x 920 height of sill above freeboard deck edge 360 m/m strongly constructed.

Particulars of Scuppers and Sanitary Discharge Pipes — Freeboard deck discharged over deck 3 scuppers in forward well and 2 scuppers in afterwell and by 3 scupper pipes 5" diam one near Poop bulkd and one near bridge bulkheads discharging through ships sides 2200 m/m below freeboard deck no storm valves fitted
All sanitary discharge pipes (W.C.s washplaces etc) all fitted on Freeboard deck in Poop, Fore castle and Bridge space or on decks above discharging through ship sides ± 2200 m/m below freeboard deck, and are all provided with storm valves fitted in steel castings to shell

Particulars of Side Scuttles: Side scuttles to spaces below freeboard deck are all fitted with deadlights permanently attached in their proper position
Side scuttles to spaces below superstructure decks, in Fore castle and Poop space are fitted with deadlights permanently attached in their proper position In Bridge space side scuttles are fitted with portable deadlights stowed adjacent to the side scuttles

Particulars of Guard Rails:— Bulwark on Fore castle and Poop deck 1090 m/m high
Bulwark on Bridge deck lenghts 9000 m/m height 970 m/m one freeing port 760 x 460 m/m height above deck edge 190 m/m

Particulars of Gangways, Lifelines, etc.:— No gangways or life lines fitted in forward and afterwell.

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	101-5	3-7	7'-0" x 9" 9'-9" x 9"	2 3	32 ft²	20 ft²
Forward Well	107-0	3-7	5-10 x 9" 8-0 x 9" 8-10 x 9" 9-8 x 9"	2 1 1 2	35.9 ft²	22 ft²

State position of each freeing port (F. and A. position and height above deck edge) After Well:— Forward Well:— height above deck edge 12"
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— no shutters or bars fitted.
Additional area where sheer is less than standard.

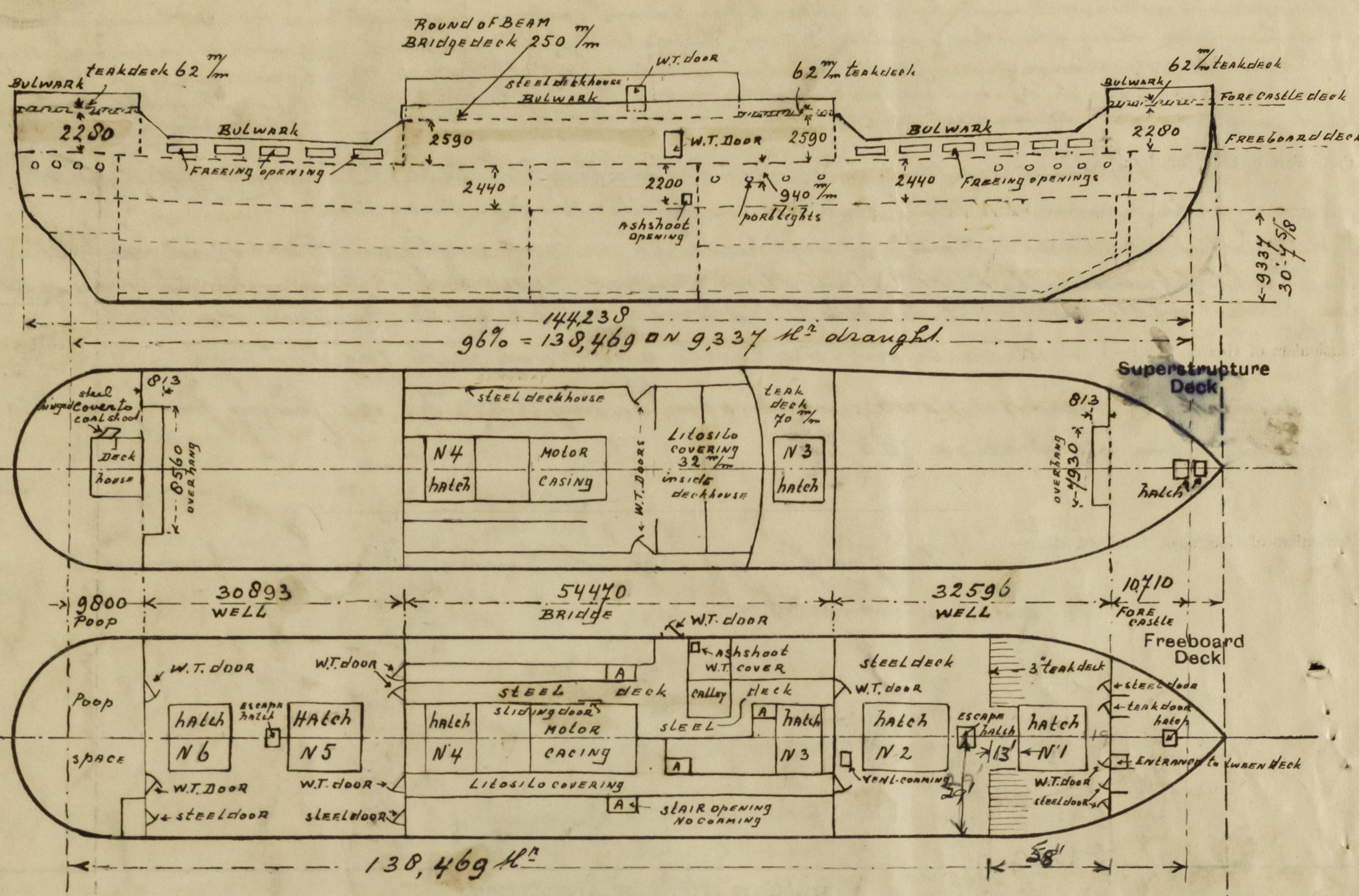
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	∠130x90x12	9½ 10½	∠130x75x8½ ∠130x75x9½	760 680 to 832	lugs top & bottom	1470 x 760 1670 x 840 700 x 580	460 305 1200	2280
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	∠130x90x9	8	⊏76x38 —100x8	760	✓	1680 x 950 1630 x 900	305 450	2460
Bridge, Forward Bulkhead	·44	·44	⊏230x90x11	760	lugs top & bottom	1630 x 900	450	2460
Forecastle Bulkhead	∠130x90x9	8	∠100x75x8	732	✓	1820 x 610 1820 x 720	220 220	2280
Trunk, Aft						1600 x 710 750 x 580	160 1200	
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	610x7	7	∠90x75x8	813	continued	✓	✓	610
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	300x9	6½	∠90x75x8	813	"	1800 x 1000	305	2460
Deckhouses on Flush Deck Ships								

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

Poop Bulkhead / ~~Raised Quarter Deck Bulkhead~~	Two W.T. steel hinged doors closed and operated from both sides One ordinary steel hinged door closed and operated from both sides
Bridge, After Bulkhead	Three W.T. steel hinged doors & one ordinary steel hinged door closed & operated from both sides
Bridge, Forward Bulkhead	Two W.T. steel hinged doors closed and operated from both sides
Forecastle Bulkhead / ~~Exposed Machinery Casings on Freeboard or Raised Quarter Decks~~	One W.T steel hinged door, three ordinary steel doors and one teak door closed and operated from both sides
Exposed Machinery Casings on Superstructure Decks	no openings
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	one teak sliding door, closed and operated from both sides
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 shewn on the following sketches :—



Sheathing

13 × 19
58

58.00
4.26
53.74 ft = 16.38 m.

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

The vessel has been built in accordance with the approved plans.

Round of beam Freeboard deck 380 m/m.
Round of beam Bridge deck 250 m/m.
Displacement in tons per inch on 30-7 5/8 draught = 57.42 tons

Builder's name and yard number N. V. Nederlandsche Scheepsbouw Maatᵉ yard Nº 228

Names of sister ships

Owners Vereenigde Nederlandsche Scheepvaart Maatschappij.

Fee f 228 : : Received by me

240 (Re amd. 1.11.34)