

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

 Index. No. 35785
 (For London Office only).

M.15373

Ship's Name PRINS BERNHARD.	Official Number	Nationality and Port of Registry DUTCH. PARAMARIBO (SURINAME)	Gross Tonnage 566.82	Date of Build 9, 1930	Port of Survey AMSTERDAM.
Moulded Dimensions: Length 51.63 M Breadth 8.04 M Depth 3.82 M					Date of Survey WHILST BUILDING.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 980 M³ tons					Surveyor's Signature C.H. Meunier
Coefficient of fineness for use with Tables .727					Particulars of Classification + 100A1 CLASS CONTEMPLATED.

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 3.820 M	(a) Where D is greater than Table depth (D - Table depth) R = 8.33(3.829 - 3.442) 13.04 = + 42 mm.	Moulded Breadth (B) 8.04 M
Stringer plate ... 0.009 M	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = .387	Standard Round of Beam = $\frac{B \times 25}{50} =$ 161 mm.
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = 160 mm.
Depth for Freeboard (D) = 3.829		Difference = 1 mm.
		Restricted to
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1}{4} \times .4466 = \text{NEGLIGIBLE.}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	21.05 M	21.05	2.0 M	<input checked="" type="checkbox"/>	21.05
" overhang ...		<i>PARTLY 50% WOOD DECK</i>			
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...					
" overhang aft ...					
" overhang forward	7.25	7.25	2.1 M	<input checked="" type="checkbox"/>	7.25
Fore enclosed SEE SKETCH	6.72 M	7.25	1.92 M	<input checked="" type="checkbox"/>	7.25
" overhang SEE SKETCH	1.08 M	<i>PARTLY 50% WOOD DECK</i>			
Tonnage opening aft55	.27		<input checked="" type="checkbox"/>	.27
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	28.85	28.57			28.57

Standard Height of Superstructure **1.83 M.**" " R.Q.D. ☒Deduction for complete superstructure **583 mm.**Percentage covered $\frac{S}{L} =$ **55.88**" $\frac{S_1}{L} =$ **55.34**" $\frac{E}{L} =$ **55.34**Percentage from Table, Line A. **39.48**

(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 = **583 x .3948 = 230 mm.**

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	684	1	684	644	644	1	644
$\frac{1}{2}$ L from A.P. ...	304	4	1216	275	275	4	1100
$\frac{2}{3}$ L " ...	76	2	152	52	52	2	104
Amidships ...	-	4	-	0.0	-	4	-
$\frac{2}{3}$ L from F.P. ...	152	2	304	134	134	2	268
$\frac{1}{2}$ L " ...	608	4	2432	557	557	4	2228
F.P. ...	1368	1	1368	1405	1405	1	1405
Total ...			6156	1405	1405		5749

Mean actual sheer aft = **Deficient.**Mean actual sheer forward = **Deficient.**
 Length of enclosed superstructure forward of amidships = } **Deficient**
 " " aft of " = } **sheers.**

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{407}{18} (.75 - .2794) = + 11 \text{ mm.}$
 If limited on account of midship superstructure ☒ 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 = **3.829**
 Summer freeboard = **.300**
 Moulded draught (d) = **3.529**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{48} \text{ inches} = 74 \text{ mm} = 7 \text{ cms.}$ Addition for Winter North Atlantic Freeboard (if required) = $74 + 51 = 125 \text{ mm} = 13 \text{ cms.}$

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 1086 \text{ M}^3$

Tons per inch immersion at summer load water line

 $T = 3.57 \text{ M}^3$ Deduction = $\frac{\Delta}{40T} \text{ inches}$ = $76 \text{ mm} = 8 \text{ cms}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.727 + .68}{1.36} = \frac{1.407}{1.36}$ Depth Correction ... **42**Deduction for superstructures ... **230**Sheer correction ... **11**Round of Beam correction ... **-**Correction for Thickness of Deck amidships ... **-**Other corrections, scantlings, etc. ... **-****53****230****- 177**Summer Freeboard = **301**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **Wood, Steel, Deck:**

Tropical Fresh Water Line above Centre of Disc ...	15 cms
Fresh Water Line " " ...	8 "
Tropical Line " " ...	7 "
Winter Line below " " ...	7 "
Winter North Atlantic Line " " ...	13 "

Tropical Fresh Water Freeboard ... **15**Fresh Water " " ... **22**Tropical " " ... **23**Winter " " ... **37**Winter North Atlantic " " ... **43**

Prins Bernhard.

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

DISPLACEMENT AT MOULDED DRAUGHT 3,50M # 1076 M³

" PER 1/M IMMERSION AT MOULDED DRAUGHT 3,50M # 3,57 M³

1.36
1.36
1.30
3.3
7.32

Forecastle Equivalent Bulkhead.

$$3.30 \times .40 = 1.32 \text{ M}^2$$

$$3.45 \times .68 = 2.69 \text{ M}^2$$

$$4.01 \div 7.32 = .55 \text{ M}$$

$$\begin{aligned} \text{Equivalent enclosed length} &= 7.80 - .55 \\ &= 7.25 \text{ M.} \end{aligned}$$

Trade of ship

Ocean Trade

Names of sister ships

✓

Builder's name and yard number

N.V. Haarlemse Scheepsbouw Mij, Haarlem, Yard N° 352.

Owners

N.V. Gemengd Bedrijf Vaartuigendienst Suriname; Residence: The Hague.

Fee

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