

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "BLUE STAR" (ex "SAN PEDRO")	Official Number 969	Nationality and Port of Registry PANAMANIAN PANAMA	Gross Tonnage <i>Ship being re-measured at this time.</i> 27360	Date of Build 1938-1mo.	Port of Survey LA SPEZIA
Moulded Dimensions: Length 512.0' Breadth 67.92' Depth 39.497' (FROM TOP OF KEEL) (TO AFTER SIDE OF RUDDER POST) (39.44' FROM BUILDERS' BASELINE)				Date of Survey SEPTEMBER, 1956	
Moulded displacement at moulded draught = 85 per cent. of moulded depth (= 33.572') 27360 ENGLISH tons S.W.				Surveyor's Signature <i>Montau</i>	
Coefficient of fineness for use with Tables .820				Particulars of Classification 100 A1 (to be assigned on completion of present conversion to dry cargo carrier)	

DEPTH FOR FREEBOARD (D). Moulded depth ... 39.50 Stringer plate .85" + .75" (CONTINUOUS DOUBLER) .07 Sheathing on exposed deck .06 $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 39.63	DEPTH CORRECTION. (a) Where D is greater than Table depth (D - Table depth) R = 5.50 $(39.63 - 34.13) 3 = + 16.50$ (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) 67.92' Standard Round of Beam = $\frac{B \times 12}{50} = 16.30$ Ship's Round of Beam = 16.75 Difference + .45 Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.45}{4} \times .337 = -.04$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
AFTER BRIDGE					
Peep enclosed EQUIV?	129.99	129.99	7.87	-	129.99
" overhang					
R.Q.D. enclosed					
" overhang	41.43				
Bridge enclosed EQUIV?	39.38	41.43	7.87	x.9	37.29
" overhang aft	1.19 2.46	.89		x.9	.80
" overhang forward	.73 1.51	.37			.37
F'cle enclosed	44.39	44.39	7.55	-	44.39
" overhang					
Trunk aft 10.4 x 35.0/67.92	41.25	50.47	7.87	x.9	51.27
" forward 12.80 x "	12.80	65.34	SEE SKETCH OVERLEAF	-	65.34
Tonnage opening aft					
" " forward					
Total	217.73	339.38			329.45

Standard Height of Superstructure	7.50
" " R.Q.D.	
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	42.52
" " $\frac{S_1}{L} =$	66.29
" " $\frac{E}{L} =$	64.34
Percentage from Table, Line A. 213.	53.38
(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 =	42.00 x .5338 = 22.42

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate (INCHES)	S	M	Product
A.P.	61.20	1		61.20		57.12	1		57.12
$\frac{1}{8}L$ from A.P.	27.24	4		108.96		17.76	4		71.04
$\frac{2}{8}L$ "	6.73	2		13.46		0	2		-
Amidships	0	4				0	4		-
$\frac{2}{8}L$ from F.P.	13.46	2		26.92		0	2		-
$\frac{1}{8}L$ "	54.48	4		217.92		23.16	4		92.64
F.P.	122.40	1		122.40		114.24	1		114.24
Total				550.86					335.04

Mean actual sheer aft =
Mean standard sheer aft =

Mean actual sheer forward =
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =
L
aft of " =

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DEFIC?

SHEERS.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{215.82}{18} \times (.75 - .2126) = + 6.44$
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 = **39.63**
Summer freeboard = **10.24**
Moulded draught (d) = **29.39**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **7.35** = **187 mm.**

Addition for Winter North Atlantic Freeboard (if required)=

Deduction for Fresh Water.

Full Displacement in salt water at summer load water line (29.385' FROM TOP OF KEEL)
 $\Delta = 23735$ ENGLISH TONS
Full Tons per inch immersion at summer load water line
 $T = 73.4$ ENGLISH TONS

Deduction = $\frac{\Delta}{40 T}$ inches
= **8.08**
= **205 mm.**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	1.50	1.36
Depth Correction	16.50	-
Deduction for superstructures	-	22.42
Sheer correction	6.44	-
Round of Beam correction	-	.04
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	5.73	-
SUMMER MOULDED DRAUGHT OF 29.39'	28.67	22.46

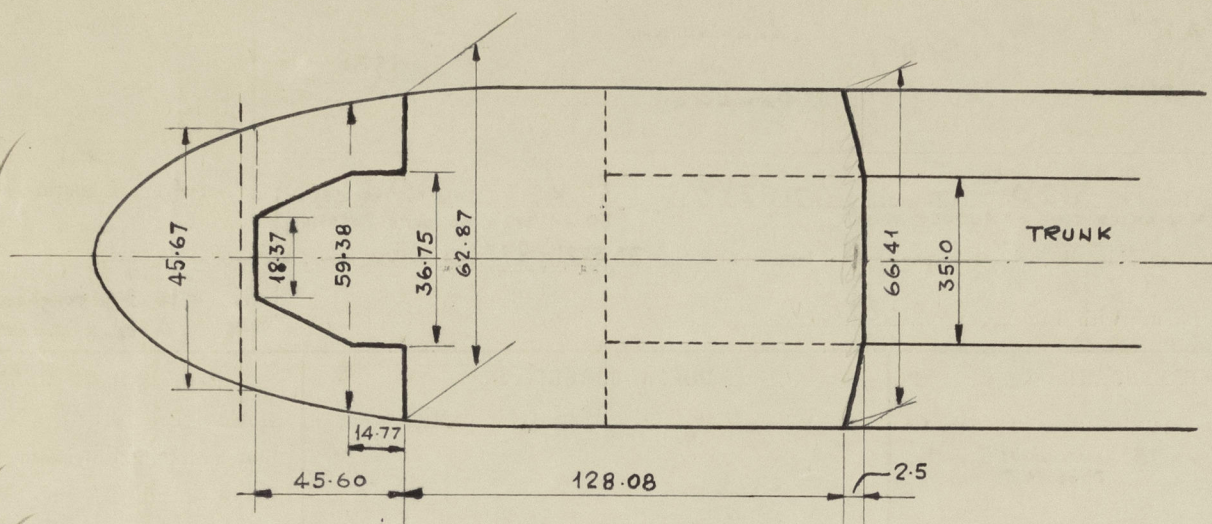
Summer Freeboard = **122.88**

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

Tropical Fresh Water Line above Centre of Disc	39.2 mm.	Tropical Fresh Water Freeboard	27.29
Fresh Water Line	20.5	Fresh Water	29.16
Tropical Line	18.7	Tropical	29.34
Winter Line below	18.7	Winter	33.08
Winter North Atlantic Line		Winter North Atlantic	

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.

PARTICULARS OF AFTER BRIDGE



Length of after bridge

$$128.08 + \frac{2.5}{2} (35.0 + 66.41) = 129.99$$

$$128.08 + 1.91 = 129.99$$

Length of Bridge

$$39.38$$

$$+ \frac{1.51 \times 35}{67.92} = .78 \quad F$$

$$+ \frac{2.46 \times 35}{67.92} = \frac{1.27}{41.43} \quad A$$

$$\frac{1}{4} \text{ fwd.} = 1.51 - .78 = .73$$

$$\frac{1}{4} \text{ aft} = 2.46 - 1.27 = 1.19$$

.89

TRUNKS.

$$\text{Aft. } (112.75 - 1.91 + .30) \frac{35.0}{67.92} = 50.97$$

$$\text{Fwd. } (126.80 + .36) \frac{35.0}{67.92} = 65.34$$

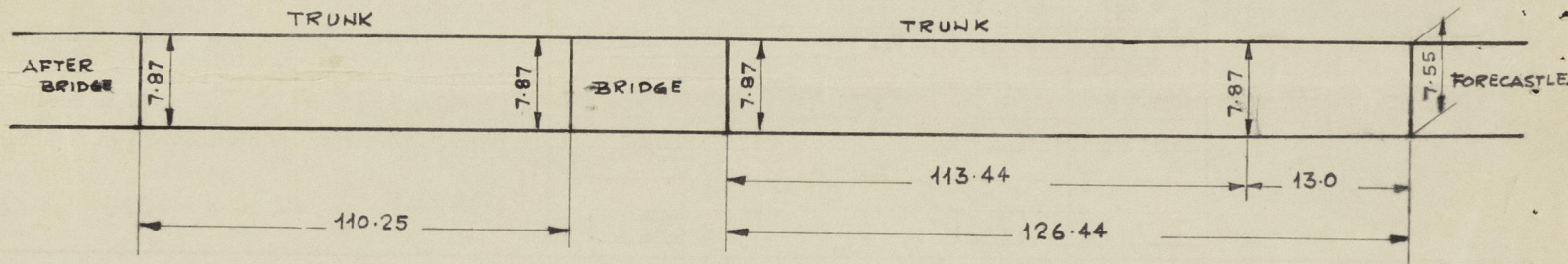
PARTICULARS OF TRUNK

TRUNK CONTINUOUS TROUGH BRIDGE & EXTENDING INSIDE AFTER BRIDGE.

CAMBER SAME AS FOR FREEBOARD DECK.

BREADTH = 35.0'

SIDE VIEW



Trade of ship BULK CARGO CARRIER

Names of sister ships —

Builder's name and yard number FRIED. KRUPP, GERMANIA WERFT A.G., KIEL - N. 569. PRESENT CONVERSION FROM TANKER TO DRY CARGO CARRIER EFFECTED BY MESSR. ANSALDO S.A. - CANTIERE DEL MUGGIANO - LA SPEZIA.

Owners EMPRESA MARITIMA DE TRANSPORTES, S.A.

Fee £ (will be sent later on)



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