

Rpt. C.11.(Compt)

Index. No. 28660.
(For London Office only.)

Lloyd's Register of Shipping. SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Forecastle, Bridge & Poop

Port of Survey ColomboDate of Survey 18th, 19th & 20th AugustName of Surveyor T.H. Noel

Particulars of Classification

Ship's Name

s.s. "FAKIRA"

(Type of Superstructures.)

Nationality and Port of Registry

Pakistan, Karachi

Official Number

191024

Gross Tonnage

6124

Date of Build

1920-3Moulded Dimensions: Length 395' 32" Breadth 55' Depth 34' - 11"

Moulded displacement at moulded draught = 85 per cent. of moulded depth

Coefficient of fineness for use with Tables 794 (Assumed)

Depth for Freeboard (D)

Moulded depth ... 34' - 11"Stringer plate ... 9' 16"Sheathing on exposed deck NONE $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 34.97

Depth correction

(a) Where D is greater than Table depth

 $(D - \text{Table depth}) R = (34.97 - 26.35) 3 = +25.86$

(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) 55' - 0"Standard Round of Beam = $\frac{B \times 12}{50} = 13.20$ Ship's Round of Beam Equivalt = 12' 10.98"Difference - 2.22

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2.22}{4} \times 55.67 = +.31$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>44.75'</u>	<u>44.75'</u>	<u>8' - 0"</u>		<u>44.75'</u>
" overhang ...	<u>Nil</u>				
R.Q.D. enclosed ...	<u>-</u>				
" overhang ...	<u>-</u>				
Bridge enclosed...	<u>109.69'</u>	<u>109.69'</u>	<u>8' - 0"</u>		<u>109.69'</u>
" overhang aft ...	<u>Nil</u>				
" overhang forward	<u>Nil</u>				
Fore enclosed <u>open</u> ...	<u>37.82'</u>	<u>20.79'</u>	<u>8' - 0"</u>		<u>20.79'</u>
" overhang ...	<u>Nil</u>				
Trunk aft ...	<u>-</u>				
" forward ...	<u>-</u>				
Tonnage opening aft ...	<u>-</u>				
" " forward	<u>-</u>				
Total ...	<u>192.6'</u>	<u>175.23'</u>			<u>175.23'</u>

Standard Height of Superstructure 7.453'" " R.Q.D. ✓Deduction for complete superstructure 41.69'Percentage covered $\frac{S}{L} = 48.63$

$$\frac{S_1}{L} = \frac{175.23}{357.62} = 49.00$$

$$\frac{E}{L} = \frac{175.23}{357.62} = 49.00$$

Percentage from Table, Line A.

(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 = $41.69' \times 31.18 = 13.00'$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>49.53</u>	1		<u>49.53</u>	<u>38"</u>	<u>38.00</u>	1		<u>38.00</u>
$\frac{1}{2}$ L from A.P. ...	<u>22.04</u>	4		<u>88.16</u>	<u>8.5"</u>	<u>8.50</u>	4		<u>34.00</u>
$\frac{2}{3}$ L " ...	<u>5.45</u>	2		<u>10.90</u>	<u>0</u>	<u>-</u>	2		<u>-</u>
Amidships ...	<u>-</u>	4		<u>-</u>	<u>0</u>	<u>-</u>	4		<u>-</u>
$\frac{2}{3}$ L from F.P. ...	<u>10.90</u>	2		<u>21.80</u>	<u>0</u>	<u>-</u>	2		<u>-</u>
$\frac{1}{2}$ L " ...	<u>44.08</u>	4		<u>176.32</u>	<u>18.5"</u>	<u>18.50</u>	4		<u>74.00</u>
F.P. ...	<u>99.06</u>	1		<u>99.06</u>	<u>89.625</u>	<u>89.63</u>	1		<u>89.63</u>
Total ...				<u>445.77</u>					<u>235.63</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75}{2L} - \frac{S}{2L} \right) = \frac{210.14}{18} \left(\frac{75}{2 \times 357.62} - \frac{24.32}{2 \times 357.62} \right) = +5.92$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.Mean actual sheer aft = DeficientMean standard sheer aft = Deficient 54.97%Length of enclosed superstructure forward of amidships = Deficient" aft of sheer forward = Sheer

$\frac{99.06}{44.08} = 2.25$
 $\frac{99.06}{10.90} = 9.09$
 $\frac{99.06}{5.45} = 18.18$
 $\frac{99.06}{22.04} = 4.49$
 $\frac{99.06}{49.53} = 2.00$
 $\frac{99.06}{89.63} = 1.10$
 $\frac{99.06}{176.32} = 0.56$
 $\frac{99.06}{357.62} = 0.28$

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 34.97
 Summer freeboard = 7.92
 Moulded draught (d) = 27.05

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 6.76 = 6 $\frac{3}{4}$ 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 =

Deduction = $\frac{\Delta}{40T}$ inches= 7 $\frac{1}{4}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{794 + .68}{1.36} = \frac{1.474}{1.36}$ Depth Correction ... 25.86Deduction for superstructures ... 13.00Sheer correction ... 5.92Round of Beam correction31Correction for Thickness of Deck amidships ... -Other corrections, scantlings, etc. ... -Summer Freeboard = 95.00SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:-

Tropical Fresh Water Line above Centre of Disc ... 14"
 Fresh Water Line " " ... 7 $\frac{1}{4}$ "
 Tropical Line " " ... 6 $\frac{3}{4}$ "
 Winter Line below " " ... 6 $\frac{3}{4}$ "
 Winter North Atlantic Line " " ... ✓

Tropical Fresh Water Freeboard ... 6 $\frac{1}{2}$ "
 Fresh Water " " ... 7 $\frac{1}{4}$ "
 Tropical " " ... 7 $\frac{1}{4}$ "
 Winter " " ... 8 $\frac{1}{2}$ "
 Winter North Atlantic " " ... ✓