

Rpt. C.11 (Comp.)

For LONDON OFFICE ONLY

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received

Index No.

Govt. Copy

Owners C11

Ship's Name <i>Miss Fumess S.B. Co Ltd</i> <i>Yard No 463.</i> CYGNUS	Official Number 424	Nationality and Port of Registry <i>GREEK</i> <i>Liberal</i> <i>PIRAEUS</i> <i>Monrovia</i>	Gross Tonnage 10,608	Date of Build 1954	Port of Survey <i>Middlesbrough</i>
Moulded Dimensions: Length <i>496.0'</i> Breadth <i>67.5'</i> Depth <i>36.42'</i>					Date of Survey <i>while Building</i>
Freeboard Length <i>497.0'</i>					Surveyor's Signature <i>A.P. Scott</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) <i>23276.</i> tons					Particulars of Classification <i>+100A1</i> <i>"Carrying Petroleum in Bulk"</i>
Coefficient of fineness for use with Tables <i>.785</i>					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... <i>36.42</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(36.49-33.13)3.00 = +10.08</i>	Moulded Breadth (B) <i>67.5</i>
Stringer plate ... <i>.86"</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{810}{50} = 16.20$
Wood Sheathing on exposed deck		Ship's Round of Beam = <i>16.0</i>
$T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Difference <i>.20</i>
Depth for Freeboard (D) = <i>36.49</i>		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.20}{4} \times .5849 = +.03$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed EQUIV. ...	<i>107.72</i>	<i>107.72</i>			<i>107.72</i>	Standard Height of Superstructure <i>7.50'</i>
" overhang ...	<i>7.50</i>		<i>7.67</i>			" " R.Q.D. <i>✓</i>
R.Q.D. enclosed ...						Deduction for complete superstructure <i>42.00"</i>
" overhang ...						Percentage covered $\frac{S}{L} = \frac{41.71}{100} = 41.71\%$
Bridge enclosed ...	<i>39.67</i>	<i>39.67</i>			<i>39.67</i>	" " $\frac{S_1}{L} = \frac{41.52}{100} = 41.52\%$
" overhang aft ...	<i>3.75</i>	<i>2.81</i>	<i>7.50</i>		<i>2.81</i>	" " $\frac{E}{L} = \frac{32.52}{100} = 32.52\%$
" overhang forward ...						Percentage from Table, Line A. TANKER = <i>32.52</i>
Fore enclosed ...	<i>56.17</i>	<i>56.17</i>	<i>7.50</i>		<i>56.17</i>	(corrected for absence of forecastle (if required)) <i>✓</i>
" overhang ...						Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required)) <i>✓</i>
" forward ...						Interpolation for bridge less than .2L (if required) <i>✓</i>
Tonnage opening aft ...						Deduction = <i>42.00 × .3252 = -13.66"</i>
" " forward ...						
Total ...	<i>207.31</i>	<i>206.37</i>			<i>206.37</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	<i>59.70</i>	1	<i>59.70</i>	<i>60.81</i>	<i>60.81</i>	1	<i>60.81</i>
$\frac{1}{8}L$ from A.P. ...	<i>26.57</i>	4	<i>106.28</i>	<i>25.75</i>	<i>25.75</i>	4	<i>103.00</i>
$\frac{2}{8}L$ " ...	<i>6.57</i>	2	<i>13.14</i>	<i>6.81</i>	<i>6.81</i>	2	<i>13.62</i>
Amidships ...	0	4	0	0	0	4	0
$\frac{3}{8}L$ from F.P. ...	<i>13.13</i>	2	<i>26.26</i>	<i>13.75</i>	<i>13.75</i>	2	<i>27.50</i>
$\frac{4}{8}L$ " ...	<i>53.13</i>	4	<i>212.52</i>	<i>54.00</i>	<i>54.00</i>	4	<i>216.00</i>
F.P. ...	<i>119.40</i>	1	<i>119.40</i>	<i>121.44</i>	<i>121.44</i>	1	<i>121.44</i>
Total ...			<i>537.30</i>				<i>542.37</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{5.07}{18} \left(\frac{.75 - .2086}{.5414} \right) = -.15"$

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 = *36.49*

Summer freeboard = *7.48*

Moulded draught (d) = *29.01*

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches = *7.25* = *7\frac{1}{4}*

Addition for Winter North Atlantic Freeboard (if required) = *7.25 + 4.97 = 12.22* = *12\frac{1}{4}*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 21733$

Tons per inch immersion at summer load water line

T = *69.23*

Deduction = $\frac{\Delta}{40 T}$ inches = *7.85*

7\frac{3}{4}"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{785 + 68}{136} = \frac{1465}{136}$

Depth Correction ... *10.08*

Deduction for superstructures ... *13.66*

Sheer correction ... *.15*

Round of Beam correction ... *.03*

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard = *89.79*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Water~~, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc *.15"*

Fresh Water Line " *7\frac{3}{4}"*

Tropical Line " *7\frac{1}{4}"*

Winter Line below " *7\frac{1}{4}"*

Winter North Atlantic Line " *12\frac{1}{4}"*

Tropical Fresh Water Freeboard *6.234*

Fresh Water " *.6.10*

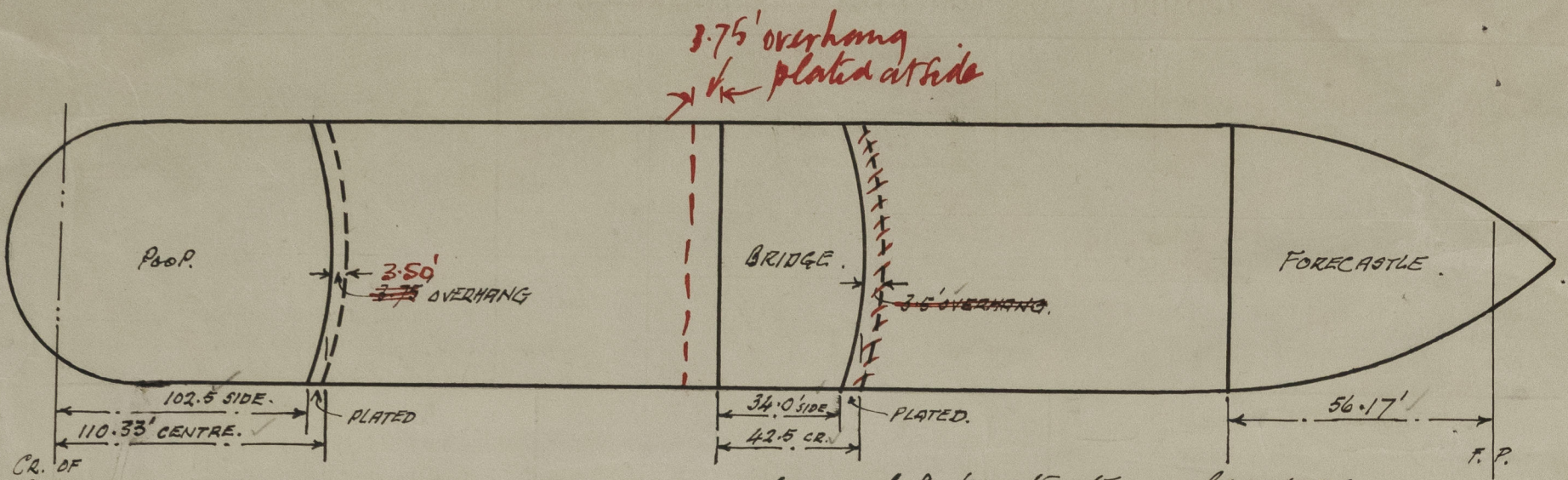
Tropical " *.6.10\frac{1}{2}*

Winter " *.8.11*

Winter North Atlantic " *.8.6*

Cygnus.

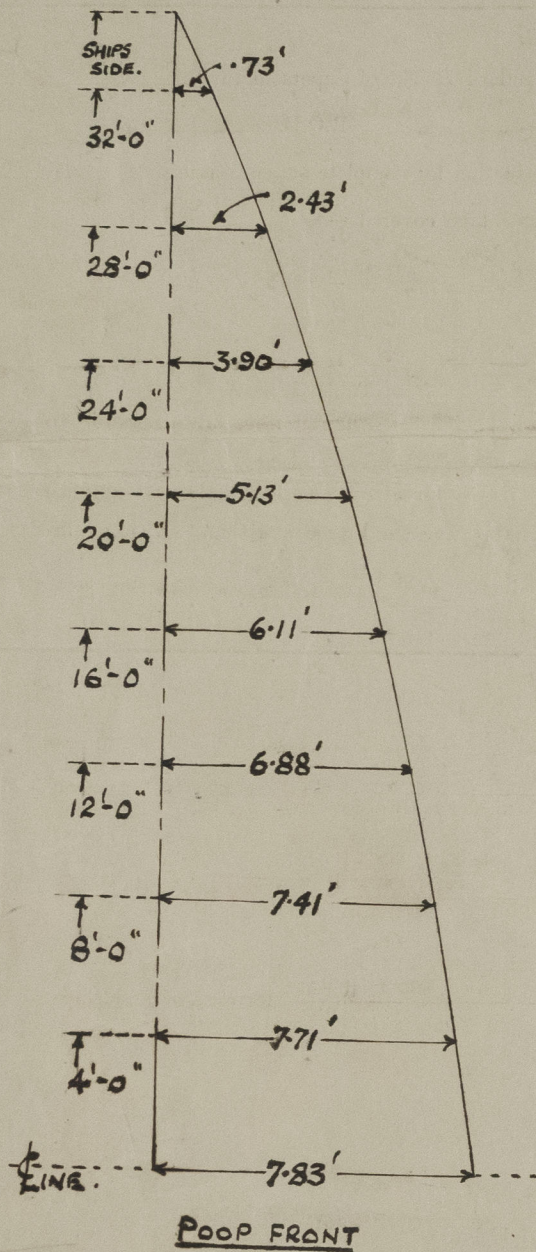
A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.



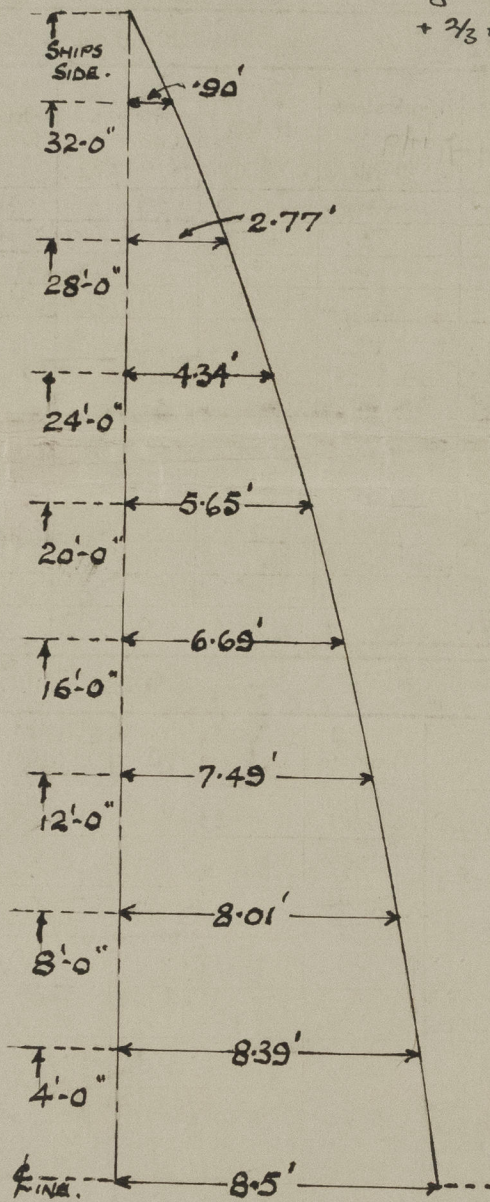
Ends of Superstructures closed as for full allowance.

Poop
length enclosed to side = 102.5
+ $\frac{2}{3} \times 7.83$ = 6.22
107.72.

BRIDGE
length enclosed to side = 34.00
+ $\frac{2}{3} \times 8.5$ = 5.67
39.67



POOP FRONT



BRIDGE FRONT.

Trade of ship INTERNATIONAL TANKER.

Names of sister ships —

Builder's name and yard number FURNESS SHIPBUILDING CO. - YARD N° 463.

Owners Sec. Transoceanica Canopus S/A. (London & Overseas Freighters Ltd.)

Fee £ will be charged with Sec entry.

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)

Midship Section.
Profile and Decks.



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Foundation