

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

having a Poop, a Trunk, a Bridge and a Forecastle. (Type of Superstructures.)

Port of Survey _____

Date of Survey 13/5/31

Name of Surveyor _____

Particulars of Classification +100 A-1
Carrying Petroleum in Bulk

Ship's Name <u>S.S. "Oilfield"</u>	Nationality and Port of Registry <u>British</u>	Official Number _____	Gross Tonnage _____	Date of Build <u>1923</u>
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Moulded Dimensions: Length 364.8 Breadth 51.0 Depth 30.75

Moulded displacement at moulded draught = 85 per cent. of moulded depth 10830 tons

Coefficient of fineness for use with Tables .779

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>30.75</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>2.806</u>	Moulded Breadth (B) <u>51</u>
Stringer plate <u>.05</u>	(30.80 - 24.82) 2.806 + 18.18	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{12.24}{50} = 12.24$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Ship's Round of Beam = <u>12.50</u>
Depth for Freeboard (D) = <u>30.80</u>	If restricted by superstructures	Difference = <u>.26</u>
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L}\right) = .06 \times .235 = -.01$

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed <u>92.75</u>	<u>92.75</u>	<u>7.6</u>		<u>92.75</u>	<u>7.15.148</u>
.. overhang					R.Q.D. _____
R.Q.D. enclosed					Deduction for complete superstructure <u>39.66</u>
.. overhang					Percentage covered $\frac{S}{L} = 43.33$
Bridge enclosed... .. <u>25.50</u>	<u>25.50</u>	<u>8.0</u>		<u>25.50</u>	" " $\frac{S_1}{L} = 76.57$
.. overhang aft					" " $\frac{E}{L} = 41.172$
.. overhang forward					Percentage from Table, Line A.
Plate enclosed <u>39.80</u>	<u>39.80</u>	<u>7.6</u>		<u>39.80</u>	(corrected for absence of forecastle (if required))
.. overhang					Percentage from Table, Line B. <u>64.59</u>
Trunk aft <u>136.75</u> × $\frac{30}{51}$	<u>79.85</u>	<u>6.0</u>	<u>6.0</u>	<u>67.02</u>	(corrected for absence of forecastle (if required))
.. forward <u>70</u> × $\frac{30}{51}$	<u>41.17</u>		<u>7.148</u>	<u>34.55</u>	Interpolation for bridge less than 2L (if required)
Tonnage opening aft					Deduction = <u>39.66</u> × $\frac{64.59}{100} = 25.62$
.. forward					<u>.56</u>
Total <u>158.05</u>	<u>249.07</u>			<u>259.62</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product	Mean actual shear aft = <u>Green</u>
A.P.	<u>46.48</u>	1	<u>46.48</u>	<u>48.0</u>	<u>48.0</u>	1	<u>48.00</u>	Mean actual shear forward = <u>Green</u>
L from A.P.	<u>20.68</u>	4	<u>82.72</u>	<u>20.54</u>	<u>20.54</u>	4	<u>82.16</u>	Mean standard shear forward =
L "	<u>5.11</u>	2	<u>10.22</u>	<u>5.13</u>	<u>5.13</u>	2	<u>10.26</u>	Length of enclosed superstructure forward of amidships = <u>Tankers</u>
midships	-	4	-	-	-	4	-	" " aft of " =
L from F.P.	<u>10.22</u>	2	<u>20.44</u>	<u>10.37</u>	<u>10.37</u>	2	<u>20.74</u>	
" "	<u>41.36</u>	4	<u>165.44</u>	<u>41.48</u>	<u>41.48</u>	4	<u>165.92</u>	
F.P.	<u>92.96</u>	1	<u>92.96</u>	<u>96.0</u>	<u>96.00</u>	1	<u>96.00</u>	
Total			<u>418.26</u>				<u>423.08</u>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{4.82}{18} \left(.75 - \frac{216}{216} \right) = -.14$

If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <u>30.80</u> Summer freeboard = <u>4.24</u> Moulded draught (d) = <u>26.56</u>	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 =	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.779 + .68}{1.36} = \frac{1.459}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="text-align: center;">+</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Depth Correction</td> <td style="text-align: right;"><u>18.18</u></td> </tr> <tr> <td>Deduction for superstructures</td> <td style="text-align: right;"><u>25.86</u></td> </tr> <tr> <td>Sheer correction</td> <td style="text-align: right;"><u>.14</u></td> </tr> <tr> <td>Round of Beam correction</td> <td style="text-align: right;"><u>.01</u></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td style="text-align: right;"><u>.71</u></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td style="text-align: right;"><u>.53</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>18.18</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>25.86</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>-7.54</u></td> </tr> <tr> <td></td> <td style="text-align: right;"><u>50.94</u></td> </tr> </table> Summer Freeboard = <u>50.94</u>			+	-	Depth Correction	<u>18.18</u>	Deduction for superstructures	<u>25.86</u>	Sheer correction	<u>.14</u>	Round of Beam correction	<u>.01</u>	Correction for Thickness of Deck amidships	<u>.71</u>	Other corrections, scantlings, etc.	<u>.53</u>		<u>18.18</u>		<u>25.86</u>		<u>-7.54</u>		<u>50.94</u>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 4-3"

Tropical Fresh Water Line above Centre of Disc	Tropical Fresh Water Freeboard
Fresh Water Line " "	Fresh Water " "
Tropical Line " "	Tropical " "
Winter Line below " "	Winter " "
Winter North Atlantic Line " "	Winter North Atlantic " "

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11294, 011302, 0135 1/2

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	Sides	...	...	...	...	...	...	...	...
	Ends	...	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...

*Are wood fore and afters steel shod at all bearing surfaces?
 Are battens and wedges efficient and in good condition?
 Are tarpaulins in good condition and in accordance with rule requirements?
 Are lashings provided in accordance with rule requirements?

Particulars of fiddle, funnel and ventilator coamings :-

Particulars of Flush Bunker Scuttles :-

Particulars of Companionways :-

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :-

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :-

Particulars of Gangway Cargo and Coaling Ports :-

Particulars of Scuppers and Sanitary Discharge Pipes -

Particulars of Side Scuttles :

Particulars of Guard Rails :-

Particulars of Gangways, Lifelines, etc. :-

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
Forward Well

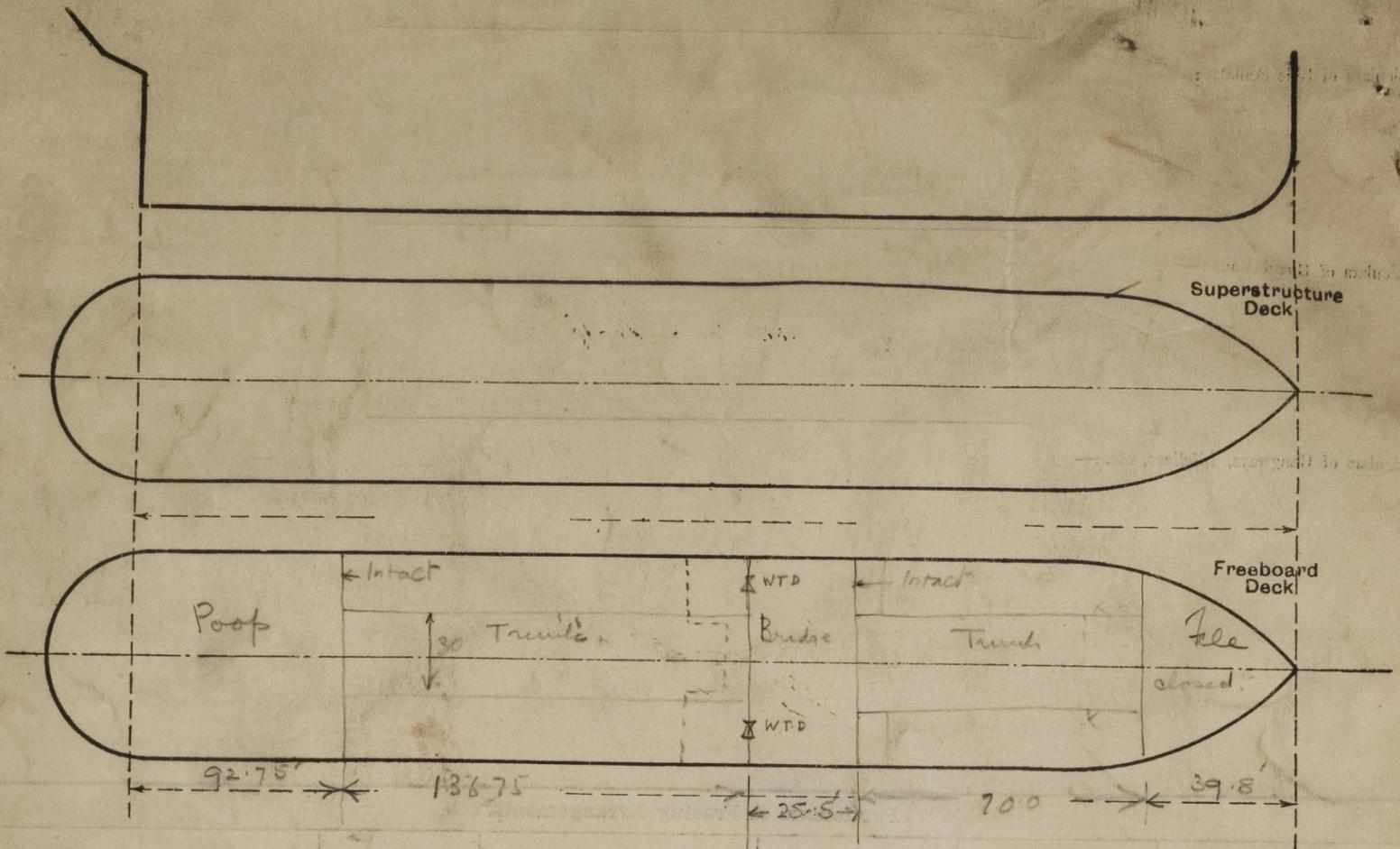
State position of each freeing port ... } After Well :-
 (F. and A. position and height above deck edge) } Forward Well :-
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :-
 Additional area where sheer is less than standard.

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
Raised Quarter Deck Bulkhead
Bridge, After Bulkhead
Bridge, Forward Bulkhead
Forecastle Bulkhead
Trunk, Aft
Trunk, Forward
Exposed Machinery Casings on Freeboard or Raised Quarter Decks
Exposed Machinery Casings on Superstructure Decks
Machinery Casings within Superstructures not fitted with Class I Closing Appliances
Deckhouses on Flush Deck Ships

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

Poop Bulkhead	...
Raised Quarter Deck Bulkhead	...
Bridge, After Bulkhead	...
Bridge, Forward Bulkhead	...
Forecastle Bulkhead	...
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...
Exposed Machinery Casings on Superstructure Decks	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...
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 shown on the following sketches:



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

Length $206.75 \times \frac{30.5}{51.8} = 121.6$

Conditions for Tonnage Rules	Forecastle fitted
Strength	Full class, Longitudinal Framing
Machinery Casings	On the Deck poop and casings are intact Poop deck openings to be closed with steel doors with 15" sills, the doors to be closed both sides
Gangway	Fitted fore and aft, details to be submitted
Bulwarks	Open rails fitted in way of trunks
Hatchway	Cargo hatch on trunk, steel cover to be fitted
Ventilators	To be adequately protected

Plans the submitted

Builder's name and yard number

Names of sister ships

Owners

Fee £

Received by me



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