

ASE I

Rpt. C.11.

Class II openings in Poop front + after end bridge.

Index No. (For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Poop, Bridge + F'cle

(Type of Superstructures.)

Port of Survey _____

Date of Survey _____

Name of Surveyor How

Particulars of Classification _____

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>KIM</u>				<u>1930</u>

Moulded Dimensions: Length 395.0 Breadth 54.75 Depth 32.0

Moulded displacement at moulded draught = 85 per cent. of moulded depth 13021 tons

* Coefficient of fineness for use with Tables .775

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth 32.00	(a) Where D is greater than Table depth (D - Table depth) R = $(32.05 - 26.33) \times 3 = +17.16$	Moulded Breadth (B) <u>54.75</u> Standard Round of Beam = $\frac{B \times 12}{50} = 13.14$ Ship's Round of Beam = <u>12</u> Difference = <u>1.14</u>
Stringer plate ... .. .05	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = _____	Restricted to _____
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>✓</u>	If restricted by superstructures <u>✓</u>	Correction = $\frac{\text{Diff}^2}{4} \times \left(\frac{1-S_1}{L} \right) = \frac{1.14^2}{4} \times .3045 = +.09$
Depth for Freeboard (D) = <u>32.05</u>		

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)	
Poop enclosed	<u>96.75</u>	<u>96.75</u>	<u>7.50</u>	<u>90.2</u>	<u>87.07</u>	Standard Height of Superstructure <u>7.45</u> ✓
.. overhang ... ..						.. .. R.Q.D. <u>✓</u>
R.Q.D. enclosed						Deduction for complete superstructure <u>41.67</u> ✓
.. overhang						Percentage covered $\frac{S}{L} = 40.57\%$ ✓
Bridge enclosed... ..	<u>25.00</u>	<u>25.00</u>	<u>7.50</u>	<u>90.2</u>	<u>22.50</u>	.. .. $\frac{S_1}{L} = 69.55\%$ ✓
.. overhang aft	<u>3.00</u>	<u>2.25</u>			<u>2.25</u>	.. .. $\frac{E}{L} = 49.35\%$ ✓
.. overhang forward						Percentage from Table, Line A. (corrected for absence of forecastle (if required)) ✓
F'cle enclosed	<u>35.50</u>	<u>35.50</u>	<u>7.50</u>	<u>✓</u>	<u>35.50</u>	Percentage from Table, Line B. Tanker (corrected for absence of forecastle (if required)) ✓ <u>40.35%</u>
.. overhang						Interpolation for bridge less than .2L (if required) ✓
Trunk aft	<u>✓</u>	<u>60.96</u>	<u>3.25</u>	<u>90% x 3.25 = 2.925</u>	<u>23.93</u>	Deduction = $41.67 \times .4035 = -16.82$ ✓
.. forward	<u>✓</u>	<u>54.25</u>	<u>3.25</u>	<u>3.25</u>	<u>23.67</u>	
Tonnage opening aft						
.. forward						
Total	<u>160.25</u>	<u>274.71</u>			<u>194.99</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>49.50</u>	1		<u>49.50</u>	<u>48.00</u>	<u>48.00</u>	1		<u>48.00</u>
$\frac{1}{8}L$ from A.P.	<u>22.03</u>	4		<u>88.12</u>	<u>21.33</u>	<u>21.33</u>	4		<u>85.32</u>
$\frac{2}{8}L$	<u>5.44</u>	2		<u>10.88</u>	<u>5.33</u>	<u>5.33</u>	2		<u>10.66</u>
Amidships	<u>✓</u>	4		<u>✓</u>	<u>✓</u>	<u>✓</u>	4		<u>✓</u>
$\frac{3}{8}L$ from F.P.	<u>10.89</u>	2		<u>21.78</u>	<u>11.85</u>	<u>11.85</u>	2		<u>23.70</u>
$\frac{4}{8}L$	<u>44.05</u>	4		<u>176.20</u>	<u>47.40</u>	<u>47.40</u>	4		<u>189.60</u>
F.P.	<u>99.00</u>	1		<u>99.00</u>	<u>96.00</u>	<u>96.00</u>	1		<u>96.00</u>
Total				<u>445.50</u>					<u>453.28</u>

Mean actual sheer aft = Deficient > 75% ✓
Mean standard sheer aft

Mean actual sheer forward = Excess
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = } Tanker
.. .. aft of .. = }

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{7.78}{18} \times (.75 - .2028) = -.24$ ✓

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.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{1.455}{1.36}$
Depth to Freeboard Deck = <u>32.05</u>	$\Delta =$	Depth Correction <u>17.16</u> ✓
Summer freeboard = <u>5.42</u>	Tons per inch immersion at summer load water line	Deduction for superstructures <u>16.82</u> ✓
Moulded draught (d) = <u>26.63</u>	T =	Sheer correction <u>.24</u> ✓
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6.66 = 6\frac{3}{4}</u>	Deduction = $\frac{\Delta}{40T}$ inches =	Round of Beam correction <u>.09</u> ✓
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships <u>✓</u>
		Other corrections, scantlings, etc. <u>✓</u>
		Summer Freeboard = <u>65.83</u> ✓

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 5 - 5\frac{3}{4}

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



PARTICULARS OF PROTECTION TO OPENINGS, ETC.

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

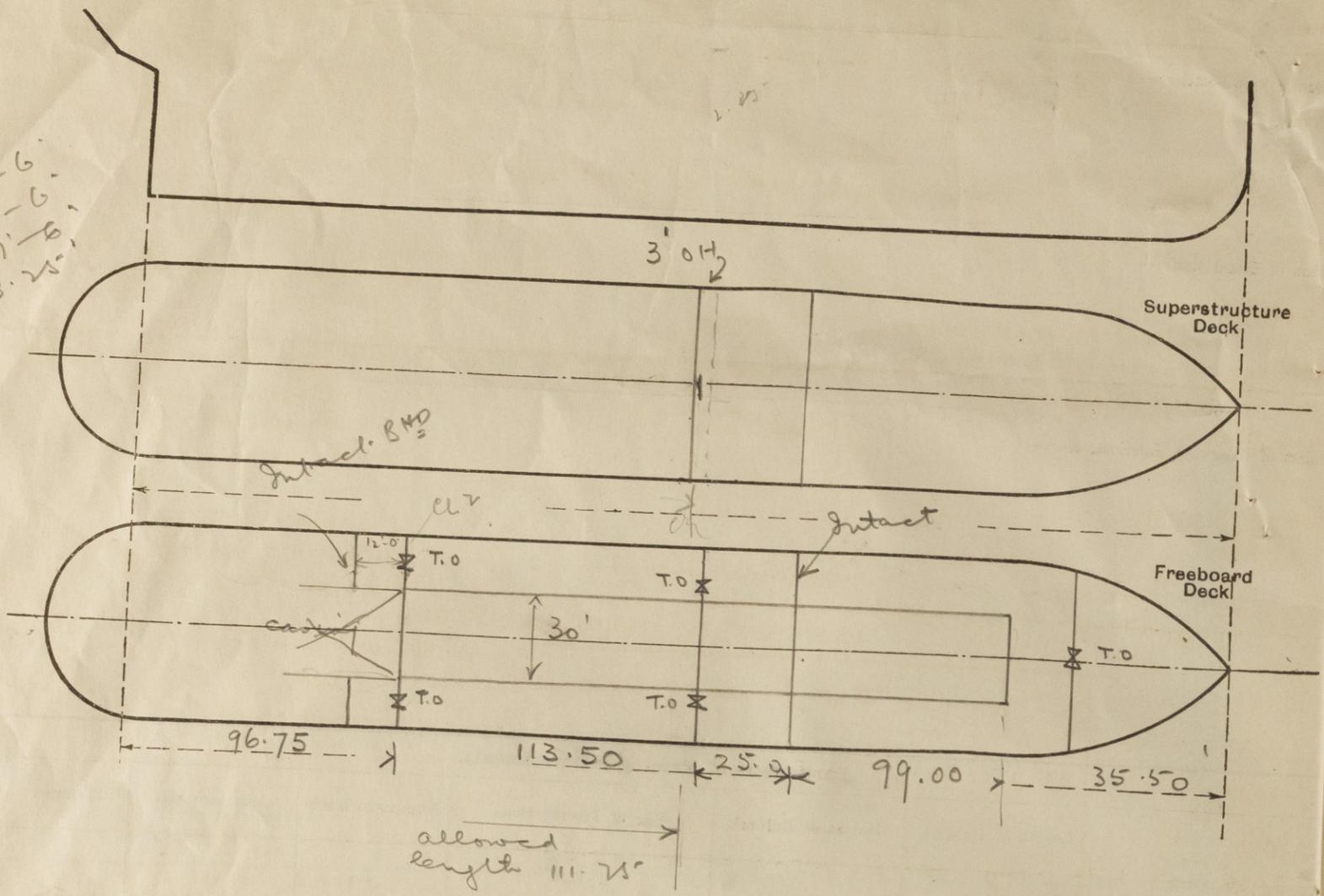
State position of each freeing port ... (F. and A. position and height above deck edge) } After Well :—
 } Forward Well :—
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—
 Additional area where sheer is less than standard.

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 coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



Handwritten notes:
 Hgls
 Prop 7'-6"
 Br. 7'-6"
 Deck 7'-6"
 Trunk 3'-2 1/2"

Handwritten calculations:
 Prop. 84.74 @ 100%
 12.00 @ 90%
 = 95.55

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

Builder's name and yard number _____
 Names of sister ships _____
 Owners _____
 Fee £ _____ Received by me _____