

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

349644

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having a complete superstructure with a tonnage opening

(Type of Superstructures.)

Ship's Name Nakshov Shitsmarfi Nationality and Port of Registry Belgian Official Number 71 Gross Tonnage 71 Date of Build 1930

Moulded Dimensions: Length 420.0 Breadth 57.0 Depth 29.26

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

Coefficient of fineness for use with Tables 71 given

Port of Survey 8-5-36

Date of Survey 8-5-36

Name of Surveyor 100M with flr

Particulars of Classification (Contemplated)

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <u>29.26</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>3.90</u> <u>(29.30 - 28.00) x 3 = + 3.90</u>	Moulded Breadth (B) <u>57.0</u>
Stringer plate ... .. <u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>1.30</u>	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		Ship's Round of Beam =
		Difference <u>Standard</u>
Depth for Freeboard (D) = <u>29.30</u>	If restricted by superstructures	Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <u>Nil</u>

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	<u>87.00</u>	<u>87.00</u>	<u>8.99</u>		<u>87.00</u>
" overhang ... ..	<u>.92</u>	<u>.46</u>			<u>.46</u>
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed ... ..					
" overhang aft ... ..	<u>328.01</u>	<u>328.01</u>	<u>8.99</u>		<u>328.01</u>
" overhang forward ... ..					
F'cle enclosed ... ..					
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..	<u>4.07</u>	<u>2.26</u>	<u>2.26</u>		<u>2.26</u>
" " forward ... ..					
Total ... ..	<u>420.00</u>	<u>417.73</u>			<u>417.73</u>

Standard Height of Superstructure 7.5

" " R.Q.D. 42

Deduction for complete superstructure 42

Percentage covered  $\frac{S}{L} =$  100.00

"  $\frac{S_1}{L} =$  99.46

"  $\frac{E}{L} =$  99.46

Percentage from Table, Line A. 99.33

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 99.33

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = 42 x .9933 = - 41.71

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<u>52.00</u>	1			<u>52.0</u>	<u>69.88</u>	1		<u>69.88</u>
$\frac{1}{2}$ L from A.P. ... ..		4			<u>5</u>	<u>31.09</u>	4		<u>124.36</u>
$\frac{2}{3}$ L " ... ..		2			<u>7</u>	<u>7.69</u>	2		<u>15.38</u>
Amidships ... ..		4			<u>13</u>	<u>13.41</u>	2		<u>26.82</u>
$\frac{2}{3}$ L from F.P. ... ..		2			<u>54</u>	<u>54.24</u>	4		<u>216.96</u>
$\frac{1}{2}$ L " ... ..		4			<u>121</u>	<u>121.88</u>	1		<u>121.88</u>
F.P. ... ..	<u>104.00</u>	1			<u>104.0</u>	<u>121.88</u>	1		<u>121.88</u>
Total ... ..				<u>468.00</u>					<u>575.28</u>

Mean actual sheer aft = 17.88

Mean standard sheer aft = 17.88

Mean actual sheer forward = 17.88

Mean standard sheer forward = 17.88

Length of enclosed superstructure forward of amidships = 17.88

" " aft of " = 17.88

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{107.28}{18} \left( .75 - .50 \right) = -1.49$

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
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{71+68}{1.36} = \frac{139}{1.36} =$
Depth to Freeboard Deck = <u>29.30</u>	$\Delta =$	Depth Correction ... .. <u>3.90</u>
Summer freeboard = <u>3.50-35</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ... .. <u>41.71</u>
Moulded draught (d) = <u>25.80-95</u>	T =	Sheer correction ... .. <u>1.49</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6.45 = 6\frac{1}{2}</u>	Deduction = $\frac{\Delta}{40T}$ inches = <u>6\frac{1}{2}</u>	Round of Beam correction ... .. <u>3.90</u>
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships ... .. <u>3.90</u>
		Other corrections, scantlings, etc. ... .. <u>3.90</u>
		Summer Freeboard = <u>42.02</u>

### SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, W, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc ... ..	<u>13</u>	Tropical Fresh Water Freeboard ... ..	<u>2-5 3/4</u>
Fresh Water Line " " ... ..	<u>6 1/2</u>	Fresh Water " " ... ..	<u>2-11 3/4</u>
Tropical Line " " ... ..	<u>6 1/2</u>	Tropical " " ... ..	<u>2-11 3/4</u>
Winter Line below " " ... ..	<u>6 1/2</u>	Winter " " ... ..	<u>3-0 1/4</u>
Winter North Atlantic Line " " ... ..	<u>6 1/2</u>	Winter North Atlantic " " ... ..	<u>3-10 3/4</u>



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

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

RETAIN

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 ... ..						

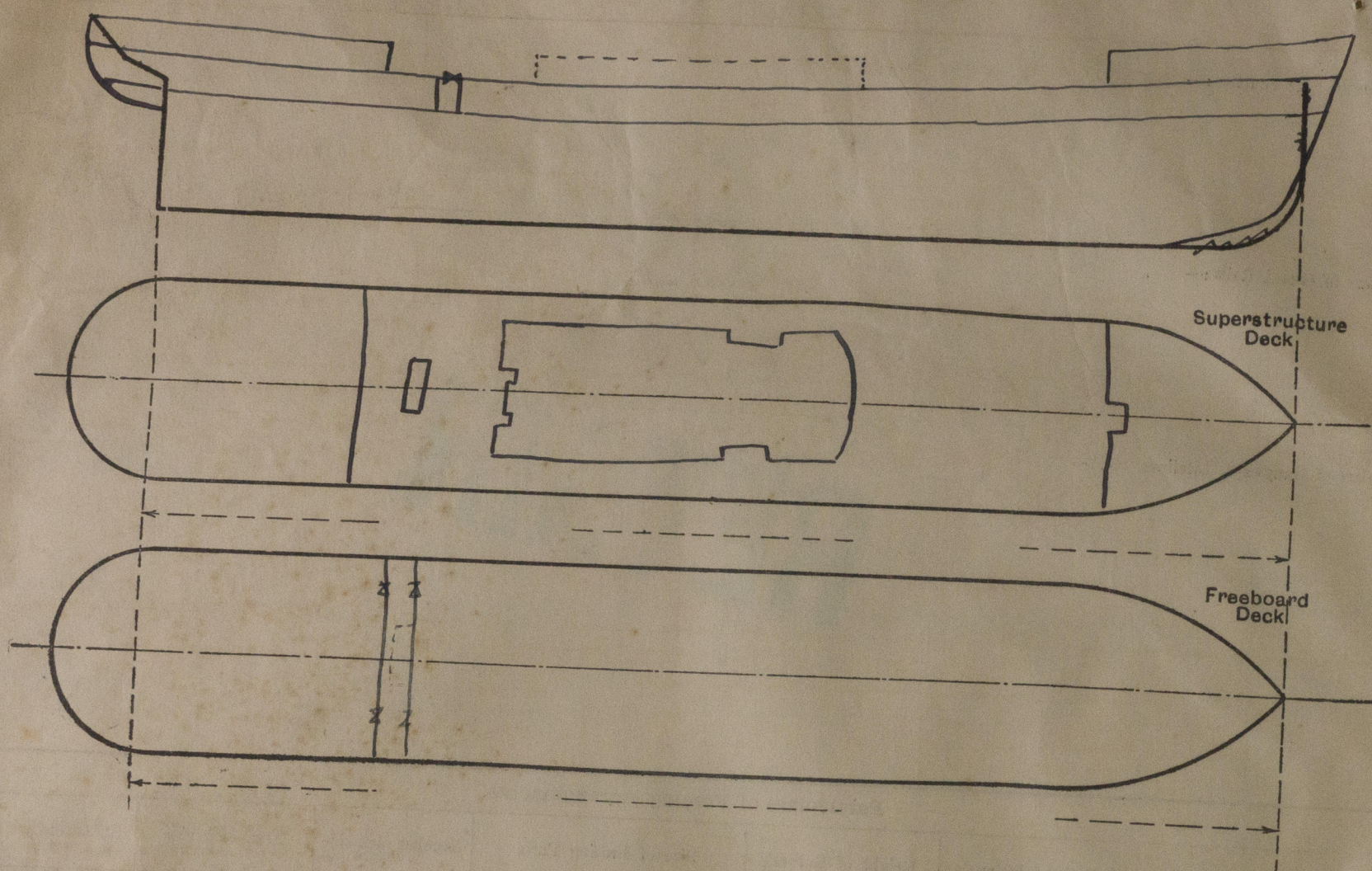
State position of each freeing port ... .. { After Well :—  
 (F. and A. position and height above deck edge) { Forward Well :—  
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—  
 Additional area where sheer is less than standard.

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 shewn on the following sketches:—



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

Builder's name and yard number

Names of sister ships

Owners

*Cie. Maritime Belge. 7. Antwerp*

Fee £

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