

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

21 MAR 34

single screw motor  
Computation of Freeboard for ~~Steamer~~ <sup>Motor</sup> Ship, ~~Trucker~~

having *Complete superstructure with tonnage opening aft and Poop and topgallant forecastle above superstructure deck.*  
(Type of Superstructures.)

Port of Survey *Odense, Denmark*

Date of Survey *March 1934*

Name of Surveyor *S. Sanderson*

Particulars of Classification *+ 100 A.1. with no. 1 class contemplated*

Ship's Name <i>M/S "TARONGA"</i>	Nationality and Port of Registry <i>Norwegian TONSBERG</i>	Gross Tonnage <i>7002.76</i>	Date of Build <i>1934</i>
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Moulded Dimensions: Length *470'-0"* Breadth *61'-0"* Depth *42'-11"* To SUPERST. D<sup>K</sup>, *31'-7"* To FREEB. D<sup>K</sup>  
Moulded displacement at moulded draught = 85 per cent. of moulded depth (26,85 ft.) *15460* <sup>LONS</sup>  
Coefficient of fineness for use with Tables *.703* ✓ *35 cub feet*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>31'-8"</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(31'-6" - 31'-33") 3'-00"</i>	Moulded Breadth (B) <i>61.00 feet</i>
Stringer plate <i>freboard deck 10.5"/in</i>	= <i>+ .84"</i> ✓	Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>14.64"</i> ✓
Sheathing on exposed deck	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Ship's Round of Beam <i>375"/in</i> = <i>14 3/4"</i> ✓
T $\left(\frac{L-S}{L}\right) =$ <i>none</i>	If restricted by superstructures ✓	Difference <i>-.11" excess</i>
Depth for Freeboard (D) = <i>31'-61"</i> ✓		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.11}{4} \times .0047 = \text{Nil}$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<i>42.46</i>	<i>42.46</i>	<i>11.33</i>	✓	<i>42.46</i>	Standard Height of Superstructure <i>7'-50"</i>
" overhang ...						" " R.Q.D. ✓
R.Q.D. enclosed ...						Deduction for complete superstructure <i>42'-00"</i> ✓
" overhang ...						Percentage covered $\frac{S}{L} =$ <i>100%</i>
Bridge enclosed ...	<i>422.16</i>	<i>422.16</i>	<i>11.33</i>	✓	<i>422.16</i>	" " $\frac{S_1}{L} =$ <i>99.53%</i>
" overhang ...						" " $\frac{E}{L} =$ <i>99.53%</i>
" overhang forward ...						Percentage from Table, Line A. <i>99.42%</i>
Fore enclosed ...						(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...	<i>5.38</i>	<i>2.21</i>	<i>11.33</i>	✓	<i>2.21</i>	Deduction = <i>42'-00" x .9942 = - 41'-76"</i>
" forward ...						
Total ...	<i>470.00</i>	<i>467.79</i>			<i>467.79</i>	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	INCHES Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<i>57.00</i>	1		<i>57.00</i>	<i>52.00</i>	<i>60.50</i>	1		<i>98.00</i>	Mean actual sheer aft = <i>Excess</i>
1/2 L from A.P. ...	<i>25.36</i>	4		<i>101.44</i>	<i>24.81</i>	<i>26.00</i>	4		<i>174.40</i>	Mean actual sheer forward = <i>Excess</i>
1/4 L " ...	<i>6.27</i>	2		<i>12.54</i>	<i>6.50</i>	<i>6.50</i>	2		<i>21.50</i>	Mean standard sheer forward = <i>Excess</i>
Amidships ...	✓	1		✓	0	0	1		✓	Length of enclosed superstructure forward of amidships =
1/2 L from F.P. ...	<i>12.54</i>	2		<i>25.08</i>	<i>12.38</i>	<i>12.38</i>	2		<i>34.92</i>	" " aft of " =
1/4 L " ...	<i>50.72</i>	4		<i>202.88</i>	<i>49.00</i>	<i>50.00</i>	4		<i>282.56</i>	
F.P. ...	<i>114.00</i>	1		<i>114.00</i>	<i>112.75</i>	<i>113.63</i>	1		<i>158.75</i>	
Total ...				<i>512.94</i>	<i>+440"</i>				<i>770.19</i>	

Correction = Difference between sums of products  $\left(\frac{75-21}{18}\right) = \frac{257.25}{18} (75-.50) = -3.57"$  ✓

If limited on account of midship superstructure. ✓

If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD (corrected for Plush Deck (if required))	
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.703 + .65}{1.36} = \frac{1.353}{1.360}$	<i>93.30</i> ✓
Depth to Freeboard Deck = <i>31'-61"</i>	Δ =		<i>94.86</i>
Summer freeboard = <i>4'-21"</i>	Tons per inch immersion at summer load water line	Depth Correction ... <i>.84</i>	
Moulded draught (d) = <i>27'-40"</i>	T =	Deduction for superstructures ... <i>41'-76</i>	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>6'-85" = 6 3/4"</i>	Deduction = $\frac{\Delta}{40 T}$ inches	Sheer correction ... <i>3'-57</i>	
Addition for Winter North Atlantic Freeboard (if required) =	$\frac{d}{4} = 6 3/4"$ ✓	Round of Beam correction ...	
		Correction for Thickness of Deck amidships ...	
		Other corrections, scantlings, etc. ...	
		Summer Freeboard = <i>50'-37</i>	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:	<i>4'-2 1/4" = 1276 mm</i>
Tropical Fresh Water Line above Centre of Disc	<i>13 1/4" = 342 mm</i>
Fresh Water Line	<i>6 3/4" = 171 mm</i>
Tropical Line	<i>6 3/4" = 171 mm</i>
Winter Line below	<i>6 3/4" = 171 mm</i>
Winter North Atlantic Line	<i>6 3/4" = 171 mm</i>
Tropical Fresh Water Freeboard	<i>3'-0 1/2" = 934 mm</i>
Fresh Water	<i>3'-7 1/4" = 1105 mm</i>
Tropical	<i>3'-7 1/4" = 1105 mm</i>
Winter	<i>4'-9" = 1447 mm</i>
Winter North Atlantic	<i>4'-9" = 1447 mm</i>



Particulars of fiddle, funnel and ventilator coverings:— 6 Ventilators 1067  $\frac{1}{4}$ " diam. with steel coverings riveted to casing top and fitted with steel cowls. Motor room skylight made of steel with hinged steel flaps. Funnel covering of 65  $\frac{1}{4}$ " steel plate riveted to casing top.

Particulars of Flush Bunker Scuttles :—

Particulars of Companionways :—

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

positions on freeboard and superstructure decks :—

Ventilator coverings on forecastle deck	8.5' <sup>1</sup> / <sub>4</sub> thick	9.5' <sup>1</sup> / <sub>4</sub> high	
" " " " " " " " " "	8.5 "	7.6 "	" "
" " " " " " " " " "	8.5-9-10 "	12.2 "	" "

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

Particulars of Gangway Cargo and Coaling Ports :—

No gangway - or coaling ports.

Lifelines fitted according to rules.

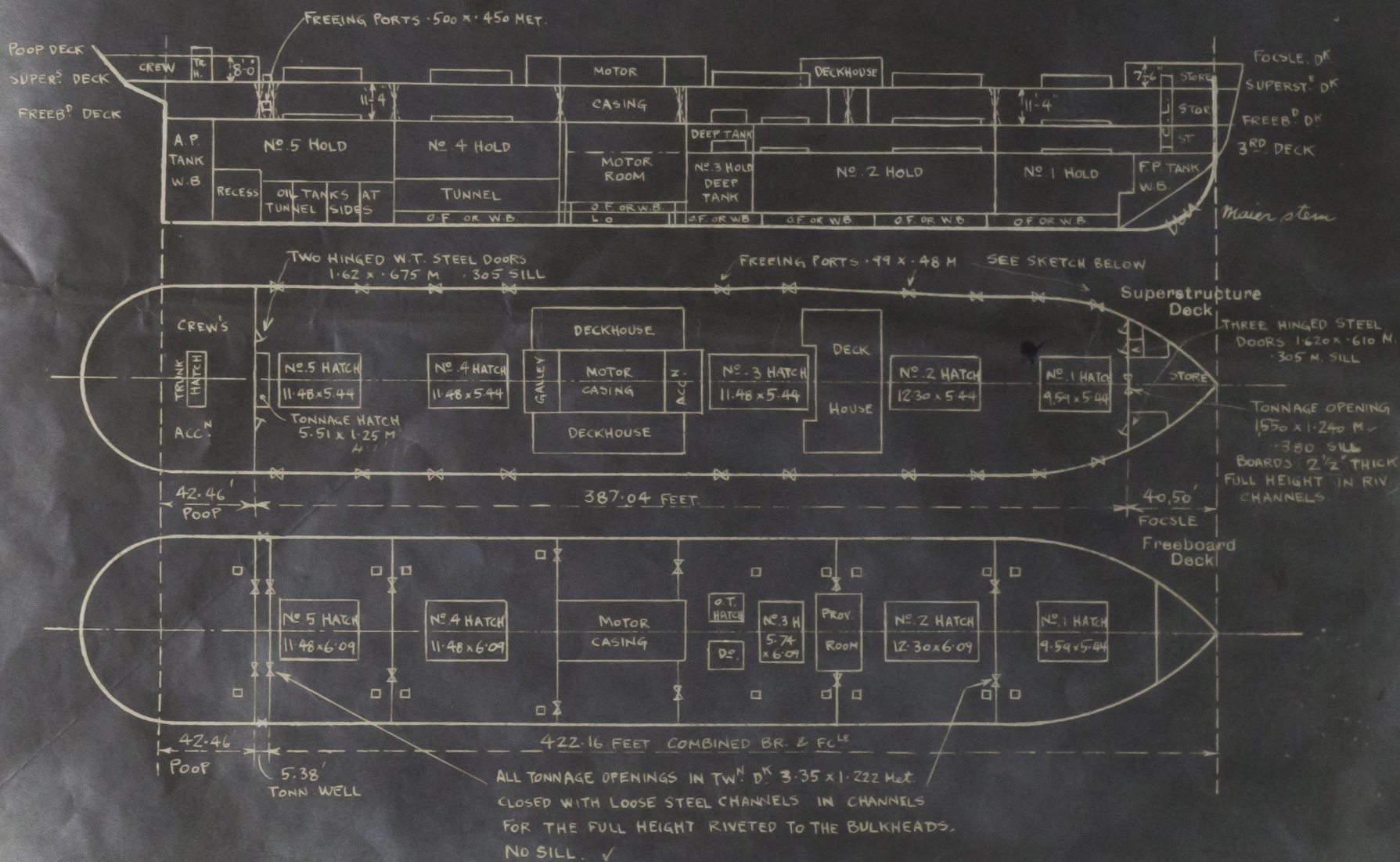
### Particulars of Freeing Arrangements.

## Particulars of Superstructures, Trunks, Casings, Deckhouses.

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



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:

Trunk hatch on poop 2.440 x 5.440 Met., coaming 735 mm high, 11 mm thick, stiffened by 150 x 75 x 10 mm 5 horizontal stiffeners. 1 hatch beam 330 x 8 mm plate and four angles 90 x 75 x 11 mm 60 mm thick pine covers.

Tonnage hatch on superstructure deck 5.510 x 1.250 Met., coaming of a 230 x 90 x 11 mm 60 mm PINE COVERS

Trimming hatches on freeboard deck 610 x 610 Met. coaming 230 mm L x 90 x 11 mm 65 mm pine covers, iron grating on hinges.

2 off after end No. 1. hold

6 - No. 2 - - -

4 - No. 4 - - -

4 - No. 5 - - -

Oil tight hatches on freeboard deck to deep tank. 2 off. 4.920 x 3.035 Met. coamings 825 mm high, 11 mm thick stiffened by 2 brackets each side 11 mm thick steel covers supported on steel fore and after and stiffened by 150 x 75 x 4 mm 5 spaced 820 mm and also by a Bulb angle cross web 250 x 90 x 12 mm

Freeing ports in bulwark on superstructure deck 10 ports each side 480 area 4.6 sq. feet each 3 - 3/8 round iron bars

Builder's name and yard number Odense Staalskibsvarft ved A. P. Møller, Yard No. 50.

Names of sister ships

Messrs. Wilh. Wilhelmsen, Oslo, Tonsberg.

Fee £

Received by me



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