

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

Index. No. 33389  
(For London Office only.)

9 JAN 1933

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~  
having POOP + Forecastle  
NORAVIND (Type of Superstructures.)  
Ship's Name T.S.M.V. (Nordandvik) Nationality and Port of Registry Swedish Official Number 7690 Gross Tonnage 8233 Date of Build 1930/12  
Moulded Dimensions: Length 449 Breadth 59 Depth 35'6"  
Moulded displacement at moulded draught = 85 per cent. of moulded depth not available tons  
Coefficient of fineness for use with Tables not available  
Port of Survey Falmouth  
Date of Survey 5.1.33 + 6.1.32  
Name of Surveyor A. Scullard & John Rundle  
Particulars of Classification 100 A.1.  
Carrying Petroleum in bulk.

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... ..	(a) Where D is greater than Table depth (D - Table depth) R =	Moulded Breadth (B)
Stringer plate ... ..		Standard Round of Beam = $\frac{B \times 12}{50} =$
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>14 3/4</u>
Depth for Freeboard (D) =	If restricted by superstructures	Difference
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) =$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	<u>95.7</u>		<u>8'-0"</u>		
" overhang ... ..	<u>4"</u>				
R.Q.D. enclosed ... ..	<u>✓</u>				
" overhang ... ..	<u>✓</u>				
Bridge enclosed ... ..	<u>✓</u>				
" overhang aft ... ..	<u>✓</u>				
" overhang forward ... ..	<u>✓</u>				
F'cle enclosed ... ..	<u>36.2</u>		<u>8'-0"</u>		
" overhang ... ..	<u>✓</u>				
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..					

Standard Height of Superstructure \_\_\_\_\_  
" " R.Q.D. \_\_\_\_\_  
Deduction for complete superstructure \_\_\_\_\_  
Percentage covered  $\frac{S}{L} =$  \_\_\_\_\_  
" "  $\frac{S_1}{L} =$  \_\_\_\_\_  
" "  $\frac{E}{L} =$  \_\_\_\_\_  
Percentage from Table, Line A.  
(corrected for absence of forecastle (if required)) \_\_\_\_\_  
Percentage from Table, Line B.  
(corrected for absence of forecastle (if required)) \_\_\_\_\_  
Interpolation for bridge less than 2L (if required) \_\_\_\_\_  
Deduction = \_\_\_\_\_

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..		1			<u>35.0</u>		1		
1/8 L from A.P. ... ..		4			<u>6.5</u>		4		
2/8 L " ... ..		2			<u>6.25</u>		2		
Amidships ... ..		4			<u>-</u>		4		
2/8 L from F.P. ... ..		2			<u>1.875</u>		2		
1/8 L " ... ..		4			<u>16.75</u>		4		
F.P. ... ..		1			<u>70.0</u>		1		
Total ... ..									

Mean actual sheer aft = \_\_\_\_\_  
Mean standard sheer aft = \_\_\_\_\_  
Mean actual sheer forward = \_\_\_\_\_  
Mean standard sheer forward = \_\_\_\_\_  
Length of enclosed superstructure forward of amidships = \_\_\_\_\_  
" " aft of " = \_\_\_\_\_

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

If limited on account of midship superstructure.

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

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <u>        </u> Ft. Summer freeboard = <u>        </u> Moulded draught (d) = <u>        </u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>        </u> Addition for Winter North Atlantic Freeboard (if required) = <u>        </u>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta =$ _____ Tons per inch immersion at summer load water line T = _____ Deduction = $\frac{\Delta}{40 T}$ inches = <u>        </u>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient Depth Correction ... .. Deduction for superstructures ... .. Sheer correction ... .. Round of Beam correction ... .. Correction for Thickness of Deck amidships ... .. Other corrections, scantlings, etc. ... .. Summer Freeboard = <u>        </u>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

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 " " ... ..



NORAVIND

Particulars of fiddle, funnel and ventilator coamings:— Engine Casing, Fiddle & funnel ventilators in efficient condition. Engine & Pump room skylights of steel strongly constructed. Stokehold gratings covered, strong steel hinged covers.

home.

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

Particulars of Gangway Cargo and Coaling Ports:—

none.

F+A gangway from Poop to Midships with 16 supports spaced 10'-11" ✓  
 F+A " " Midships to Fore with 10 supports " 10'-11" ✓  
 Rails & stanchions 5'-10" apart, 3'-4" high 2 Rails. ✓  
 Stanchions riveted to top, 2 rivets. ✓

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	✓	7/16"	10" x 3 1/2" B.A.	28"	cup T & B	none	✓	8'-0"
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead ... ..	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, Forward Bulkhead ... ..	✓	✓	✓	✓	✓	✓	✓	✓
Forecastle Bulkhead ... ..	✓	5/16"	3 1/2" x 3" x 3/8" <sup>0.A.</sup>	26"	none	5'-5" x 2'-0"	12"	8'-0"
Trunk, Aft ... ..	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward ... ..	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Super-structure Decks ... ..	✓	3/8"	5" x 3" x 3/8" <sup>0.A.</sup>	32"	none	5'-5" x 2'-6"	12"	7'-8"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	✓	3/8"	5" x 3" x 3/8" <sup>0.A.</sup>	32"	none	5'-9" x 2'-6"	6"	8'-0"
Deckhouses on Flush Deck Ships ...	✓	✓	✓	✓	✓	✓	✓	✓

Poop Bulkhead ... ..	✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ... ..	✓
Bridge, Forward Bulkhead ... ..	✓
Forecastle Bulkhead ... ..	
Exposed Machinery Casings on Free-board 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 ...	✓

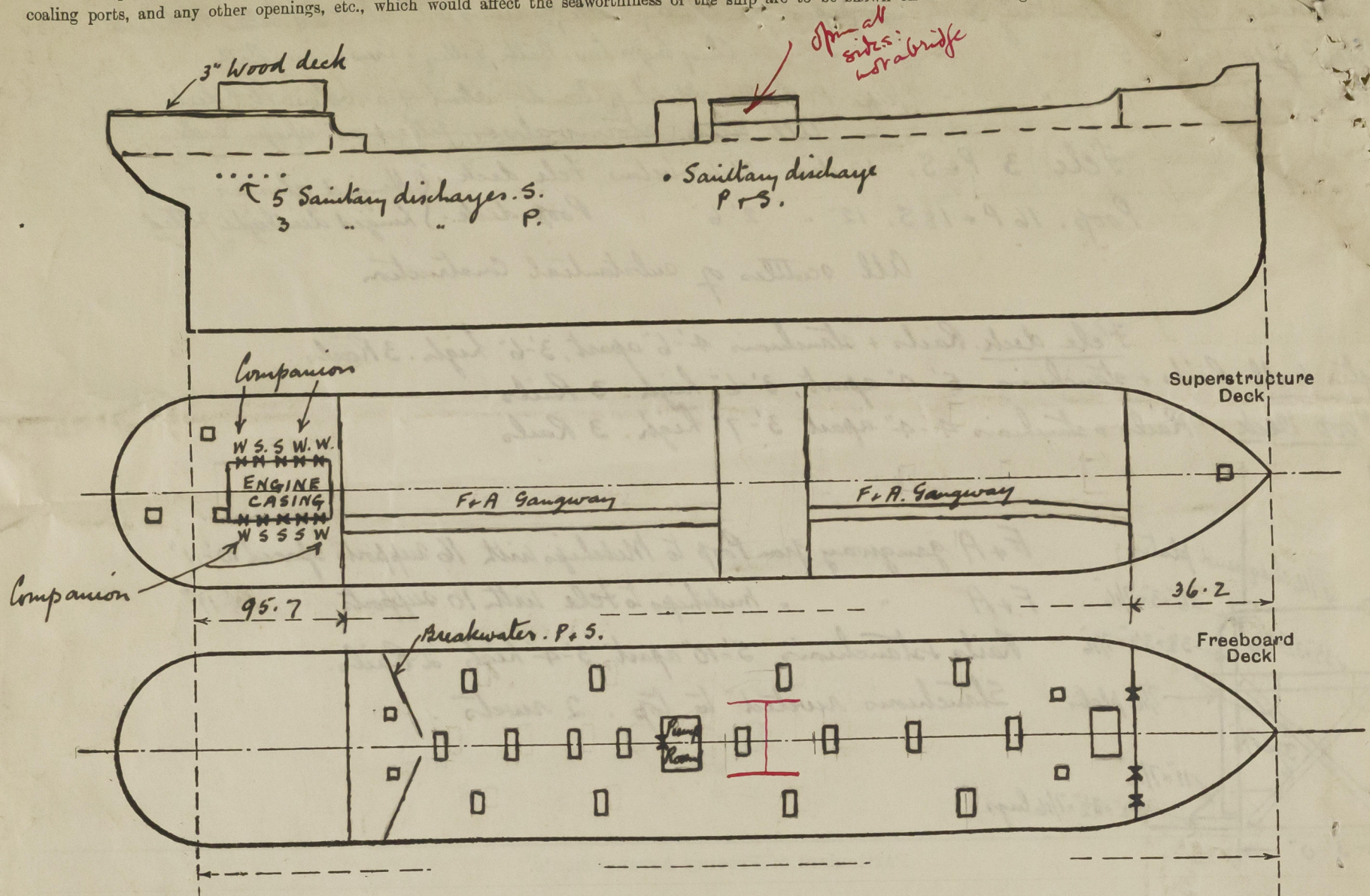
*Hinged steel W.T. doors manipulated from both sides !*

*Hinged steel doors to machinery + Galley manipulated from both sides !*

*Hinged steel doors to machinery 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 shewn on the following sketches:—



State any special features in the construction of the ship:— *in dry dock*  
 Vessel examined <sup>in dry dock</sup> for Condition Survey.

The Owner desires no alterations at present, the vessel is on time charter. He wishes the old freeboard re-assigned.  
 The vessel sails today -

Builder's name and yard number

Names of sister ships *This report refers to the T. Sc. M. V. "Nordamvik". ("Kalmia")*

Owners *Norrköpings Rederiaktb. (Y. Schreil Mgr.)*

Fee £ *16 3 0*

Received by me

*AS.*



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