

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index No. **35754**  
(For London Office only.)

AUG 10 1938

Computation of Freeboard for Steamer, <del>Sailing Ship, Tanker</del>				
having <u>POOP, BRIDGE, FORECASTLE</u>				
(Type of Superstructures.)				
Ship's Name <b>NOORDAM</b> <small>TO CR. OF RUDDER STOCK 145.137M</small>	Nationality and Port of Registry <b>DUTCH ROTTERDAM</b>	Official Number <b>✓</b>	Gross Tonnage <b>not yet known</b>	Date of Build <b>1938-</b>
Moulded Dimensions: Length $475.0 = 144.777$ M Breadth $64.0 = 19.507$ M Depth $40.00 = 12.192$ METRES.				
Moulded displacement at moulded draught = 85 per cent. of moulded depth $20.380$ M <sup>3</sup> tons				
Coefficient of fineness for use with Tables $.695$				
Port of Survey <b>ROTTERDAM</b>			Date of Survey <b>28<sup>th</sup> July, 4<sup>th</sup> Aug. 1938</b>	
Name of Surveyor <b>J. van der Ned</b>			Particulars of Classification <b>100A.1</b>	
CLASS CONTEMPLATED.				

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... $12.192$	(a) Where D is greater than Table depth (D - Table depth) R = $18.33(12.230 - 9.677)30 = +638$ mm	Moulded Breadth (B) $19.507$
Stringer plate ... $0.010$	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = $2.553$	Standard Round of Beam = $\frac{B \times 2}{50} = 390$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) = 75 \times .37061 = 27.796$	If restricted by superstructures	Ship's Round of Beam = $0.305$
Depth for Freeboard (D) = $12.230$		Difference $85$ deficient
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{85^2}{4} \times \left( 1 - \frac{.3736}{1} \right) = +8$ mm

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poep enclosed EQUIVALENT	$11.006$	$11.006$	$2.438$		$11.006$
SEE SKETCH " overhang ...	$.026$	$.013$			$.013$
R.Q.D. enclosed	$\checkmark$				
" overhang	$\checkmark$				
Bridge enclosed...	$65.364$	$65.364$	$2.667$		$65.364$
" overhang aft	$\checkmark$				
" overhang forward	$0.838$	$.419$	$2.333$ (VIRTUAL)		$.419$
F'cle enclosed ...	$14.111$	$14.111$	$2.286$		$14.111$
" overhang ...	$\checkmark$				
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	$91.345$	$90.913$			$90.913$

Standard Height of Superstructure	$2290$ mm	$\checkmark$
" " R.Q.D.	$\checkmark$	
Deduction for complete superstructure	$1067$ mm	$\checkmark$
Percentage covered $\frac{S}{L} =$	$62.94$	$\checkmark$
" " $\frac{S_1}{L} =$	$62.64$	$\checkmark$
" " $\frac{E}{L} =$	$62.64$	$\checkmark$
Percentage from Table, Line A.	$50.49$	
(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 =	$1067 \times 50.49 = -539$ mm	$\checkmark$

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ....	$1463$	$1$		$1463$	$1119$	$1119$	$1$		$1119$
$\frac{1}{2}$ L from A.P. ...	$650$	$4$		$2600$	$543$	$543$	$4$		$2172$
$\frac{3}{8}$ L " ...	$162$	$2$		$324$	$133$	$133$	$2$		$266$
Amidships ...		$4$			$0$		$4$		
$\frac{5}{8}$ L from F.P. ...	$325$	$2$		$650$	$269$	$269$	$2$		$538$
$\frac{1}{2}$ L " ...	$1300$	$4$		$5200$	$1081$	$1081$	$4$		$4324$
F.P. ....	$2926$	$1$		$2926$	$2438$	$2438$	$1$		$2438$
Total ...				$13163$					$10857$

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{2306}{18} \left( .75 - \frac{3147}{2 \times 144.777} \right) = +56$  mm

If limited on account of midship superstructure.

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

DRAGHT	EXTER. DISPL.	TONS/INCH
$10.260$ M.	$20.400$ TONS	$60.61$
$9.960$ "	$19.690$ "	$60.23$
$9.660$ "	$18.990$ "	$59.84$
$9.360$ "	$18.290$ "	$59.45$
$9.060$ "	$17.590$ "	$59.04$

Mean actual sheer aft =  
Mean standard sheer aft = DeficientMean actual sheer forward = Deficient  
Mean standard sheer forwardLength of enclosed superstructure forward of amidships =  
" " aft of " = Deficient Sheer

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =  $12.202$  M  
Summer freeboard =  $2.580$  M  
Moulded draught (d) =  $9.622$  M

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{48}$  inches =  $20$  mm

## Addition for Winter North Atlantic Freeboard (if required) =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 19060$ 

Tons per inch immersion at summer load water line

 $T = 59.88$ Deduction =  $\frac{\Delta}{40 T}$  inches $= 7.96$  inches $20$  mm

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.695 + .68}{1.36} = \frac{1.375}{1.36}$ 

	+	-
Depth Correction	$638$	
Deduction for superstructures		$539$
Sheer correction	$56$	
Round of Beam correction	$8$	
Correction for Thickness of Deck amidships		$28$
Other corrections, scantlings, etc.		
	$702$	$567$

Summer Freeboard =  $2580$  mmSUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck:-

Tropical Fresh Water Line above Centre of Disc	$40$ mm
Fresh Water Line	$20$ mm
Tropical Line	$20$ mm
Winter Line below	$20$ mm
Winter North Atlantic Line	$20$ mm

Tropical Fresh Water Freeboard	$218$ mm
Fresh Water	$238$ mm
Tropical	$238$ mm
Winter	$278$ mm
Winter North Atlantic	$278$ mm



"NOORDAM."

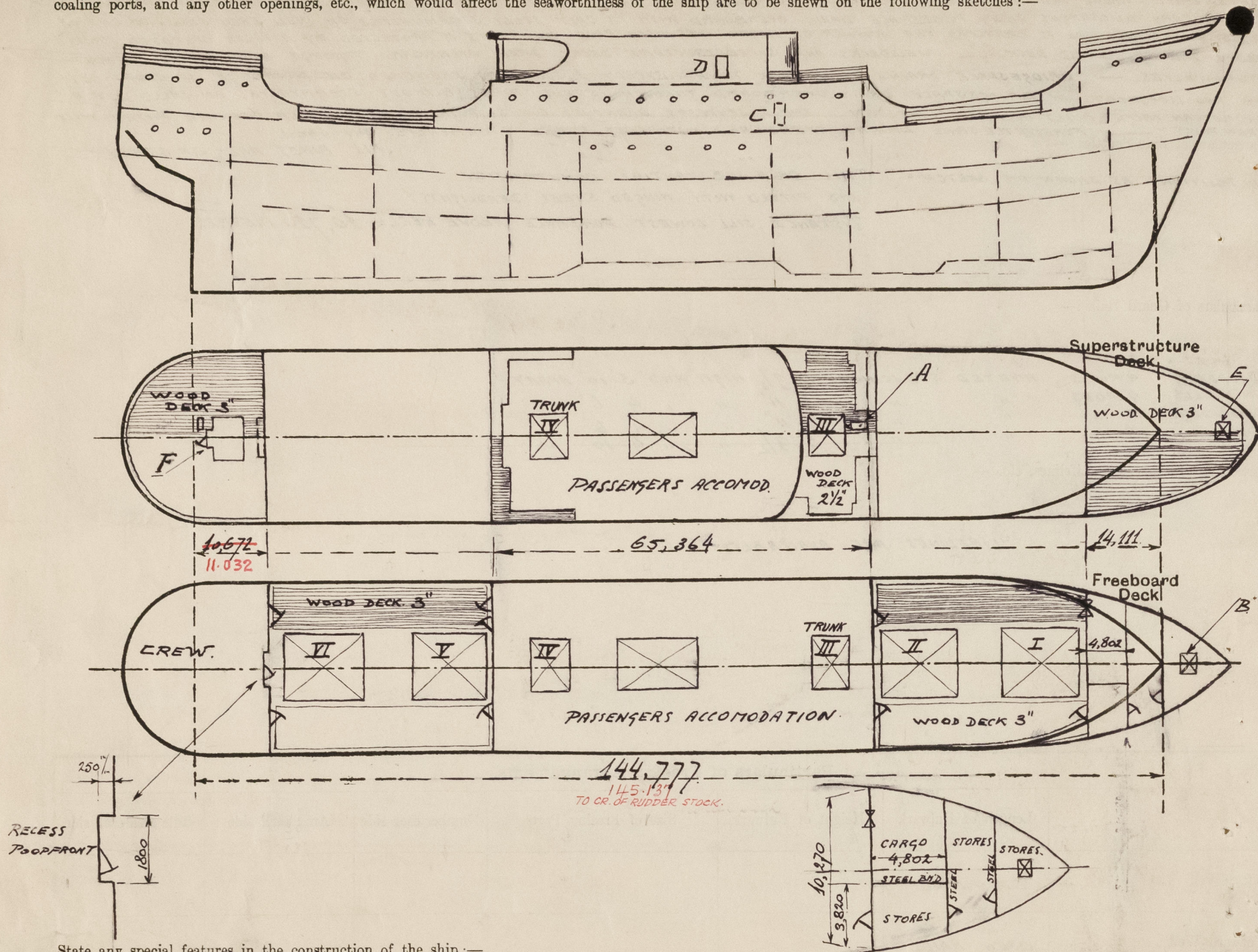
\_\_\_\_\_

LIFELINES ARE AVAILABLE. ✓

Item	Quantity	Description
Poop Bulkhead	...	...
Raised Quarter Deck Bulkhead	...	...
Bridge, After Bulkhead	...	...
Bridge, Forward Bulkhead	...	...
Forecastle Bulkhead	...	...
Exposed Machinery Casings on Fore- board or Raised Quarter Decks	...	...
Exposed Machinery Casings on Super- structure Decks	...	...
Machinery Casings within Superstruc- tures 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:—

ON POOPDECK BEHIND STEEL HOUSE IS A STEEL SKYLIGHT 14" HIGH WITH HINGED STEEL FLAPS.  
HATCH B TO FOREPEAK IS PROTECTED!

$$\frac{1800 \times 250}{16.965} = \frac{11.032 \text{ Loop}}{.026} = 11.006 \text{ equivalent!}$$

width of Poop front measured at the level of the freeboard deck is 17,250 metre

Builder's name and yard number N.V. "MACHINEFABRIEK & SCHEEPSWERF VAN P. SMIT. Jr."

YARD N° 515

Names of sister ships ✓

Owners N.V. "NEDERLANDSCH AMERIKAANSCH STEAMVAART MAATSCHAPPY" (HOLLAND-AMERIKA LYN)

Fee 240,00

Received by me Rotterdam 9<sup>th</sup> AUGUST 1938

*J. van der Neel*  
LR

© 2020

Lloyd's Register  
Foundation