

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

13 DEC 1935

Computation of Freeboard for POOP AND FORECASTLE, Tankerhaving POOP AND FORECASTLEPort of Survey ROTTERDAM

(Type of Superstructures.)

Date of Survey BUILDING

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<u>M/S "WHEELSMAN"</u>	<u>BRITISH LONDON</u>	<u>164566</u>	<u>287</u>	<u>1936</u>

Name of Surveyor C. LODDER

Moulded Dimensions: Length 131.25 Breadth 23.29 Depth 9.5
Moulded displacement at moulded draught = 85 per cent. of moulded depth 537 tons
Coefficient of fineness for use with Tables .768

Particulars of Classification ±100 A1
"CARRYING PETROLEUM IN BULK"

(CLASS CONTEMPL.)

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	<u>9.50</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>.80</u> <u>(9.53 - 8.73) / 1.01 = .79</u>		Moulded Breadth (B)	<u>23.29</u>
Stringer plate	<u>.03</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	<u>5.59</u>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$				Ship's Round of Beam	<u>7.0</u>
				Difference	<u>EXCESS 1.41</u>
Depth for Freeboard (D) =	<u>9.53</u>	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	<u>= $\frac{1.41}{4} \times .5963 = -.21$</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed	<u>34.75</u>	<u>34.75</u>	<u>6.95</u>		<u>34.75</u>	Standard Height of Superstructure <u>6.0</u>
" overhang						" " R.Q.D.
R.Q.D. enclosed						Deduction for complete superstructure <u>19.12</u>
" overhang						Percentage covered $\frac{S}{L} =$ <u>41.41%</u>
Bridge enclosed						" " $\frac{S_1}{L} =$ <u>40.38%</u>
" overhang aft						" " $\frac{E}{L} =$ <u>40.38%</u>
" overhang forward						Percentage from Table, Line A
F'cle enclosed	<u>16.50</u>	<u>16.50</u>	<u>6.74</u>		<u>16.50</u>	(corrected for absence of forecastle (if required)) <u>TANKER.</u>
" overhang	<u>3.50</u>	<u>1.75</u>			<u>1.75</u>	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						Deduction = <u>.3138</u> \times <u>19.12</u> = <u>6.00</u>
" forward						
Total	<u>54.75</u>	<u>53.00</u>			<u>53.00</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	<u>23.12</u>	1		<u>23.12</u>	<u>25.5</u>	<u>25.5</u>	1		<u>25.50</u>	Mean actual sheer aft = <u>EXCESS</u>
$\frac{1}{2}$ L from A.P.	<u>10.29</u>	4		<u>41.16</u>	<u>11.0</u>	<u>11.0</u>	4		<u>44.00</u>	Mean actual sheer forward = <u>EXCESS</u>
$\frac{2}{3}$ L " "	<u>2.54</u>	2		<u>5.08</u>	<u>2.45</u>	<u>2.45</u>	2		<u>5.50</u>	Mean standard sheer forward
Amidships	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships =
$\frac{2}{3}$ L from F.P.	<u>5.09</u>	2		<u>10.18</u>	<u>6.25</u>	<u>6.25</u>	2		<u>12.50</u>	" " aft of " =
$\frac{1}{2}$ L " "	<u>20.58</u>	4		<u>82.32</u>	<u>23.0</u>	<u>23.0</u>	4		<u>92.00</u>	DOES NOT APPLY.
F.P.	<u>46.25</u>	1		<u>46.25</u>	<u>51.0</u>	<u>51.0</u>	1		<u>51.00</u>	TANKER.
Total				<u>208.11</u>					<u>230.50</u>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{22.39}{18} \left(.75 - \frac{.45}{21.1} \right) = .67$

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.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 9.53
Summer freeboard = .65
Moulded draught (d) = 8.88

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 2.22 2 1/4"Addition for Winter North Atlantic Freeboard (if required) = 2 1/4" + 2" = 4 1/4"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 600

Tons per inch immersion at summer load water line

T = 6.25Deduction = $\frac{\Delta}{40T}$ inches= 2.402 1/2"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.768 + .68}{1.36} = \frac{1.448}{1.36}$

	+	-
Depth Correction	<u>.80</u>	
Deduction for superstructures	<u>.49</u>	
Sheer correction		<u>6.0</u>
Round of Beam correction		<u>.67</u>
Correction for Thickness of Deck amidships		<u>.21</u>
Other corrections, scantlings, etc.		
	<u>.80</u>	
	<u>.49</u>	
	<u>6.88</u>	<u>(-) 6.09</u>

Summer Freeboard = 7.84SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, POOP AND FORECASTLE, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc 4 3/4"
Fresh Water Line " " 2 1/2"
Tropical Line " " 2 1/4"
Winter Line below " " 2 1/4"
Winter North Atlantic Line " " 4 1/4"

Tropical Fresh Water Freeboard 0'-3"
Fresh Water " 0'-5 1/4"
Tropical " 0'-5 1/2"
Winter " 0'-10"
Winter North Atlantic " 1'-0"

20 DEC 1935

004971-004981-0207 1/2

MARKING FORM
RECEIVEDRECEIVED
4 JAN 1936

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway			OIL TIGHT HATCHES ON TRUNKS.				OIL TIGHT HATCHES TO COFFERDAM			
Dimensions of Hatchway			2'-0" x 2'-0"				2'-0" x 2'-0"			
COAMINGS	Height above Deck	...	COAMINGS L 6½ x 3 x .40				L 6½ x 3 x .40			
	Thickness	Sides								
		Ends								
	Stiffeners							
Brackets, Stays	...	...						
HATCH BEAMS	Number	...								
	Spacing	...								
	Scantling and Sketch	...	NONE.				NONE.			
	Bearing Surface	...								
FORE AND AFTERS	Number	...								
	Spacing	...								
	Unsupported Lengths	...								
	Scantling* and Sketch	...	NONE.				NONE.			
Bearing Surface	...	...						
HATCH COVERS	Material	...	STEEL.				STEEL.			
	Thickness	...	.40				.40			
	How fitted	...	HINGED.				HINGED.			
	Bearing Surface	...	OIL TIGHT.				OIL TIGHT.			
Spacing of Toggles			12"				12"			
Number of Tarpaulins										
<div>*Are wood fore and afters steel shod at all bearing surfaces ?</div> <div>Are battens and wedges efficient and in good condition ?</div> <div>Are tarpaulins in good condition and in accordance with rule requirements ?</div> <div>Are lashings provided in accordance with rule requirements ?</div>										

Particulars of fiddle, funnel and ventilator coamings:—

FIDDLE, FUNNEL AND VENTILATOR COAMINGS OF STEEL AND STRONGLY CONSTRUCTED.
E.R. SKYLIGHT OF STEEL WITH HINGED STEEL FLAPS.

Particulars of Flush Bunker Scuttles:— NONE FITTED.

W.T. MANHOLE TO FORWARD COFFERDAM, PROTECTED BY OVERHANG OF FLE. ✓

Particulars of Companionways:—

STL COMPANIONWAY TO PUMPROOM. FITTED ON TRUNK TOP. SILL 24½", OPENING 3'-9" x 2'-5". STRONG STEEL HINGED W.T. DOOR. TOGGLES OUTSIDE ONLY.
STL DECKHOUSE UNDER WHEELHOUSE. STRONG HINGED TEAK DOOR GIVING ACCESS TO ACCOMODATION. DOOR OPERATED FROM BOTH SIDES. SILL 18", OPENING 4'-5" x 2'-0".
AFTEREND MOTOR CASING: ONE OPENING 4'-6" x 2'-2" LEADING TO ACC. SILL 15". STRONG TEAK HINGED DOOR OPERATED FROM BOTH SIDES. ONE OPENING 4'-6" x 2'-2" LEADING TO MOTOR ROOM. SILL 15". STEEL DOOR (HINGED), OPERATED FROM BOTH SIDES.
ONE STEEL COMPANIONWAY ON POOP DECK AFT. SILL 18". 2 STL HINGED DOORS. OPERATED FROM BOTH SIDES.

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

ON FORECASTLE: 2 VENTS 36" x 6¼" LEADING TO FORECASTLE.
ON TRUNK AFT: 1 VENT 36" x 6¼" PUMPROOM.
ON COMP. WAY: 1 " 24" x 9" " "
ON UPPER DECK: 2 VENTS 49-0" x 6¼" " " O.F. BUNKERS. COAMINGS SUPPORTED AND PATENT CAPS FITTED. ✓
ON POOP DECK: 6 " 33" x 6¼" " " POOP SPACE. ✓
3 MUSHROOM VENTS " " "
ALL COAMINGS CONSTRUCTED IN ACCORDANCE WITH THE RULES.
WOOD PLUGS AND CANVAS COVERS SUPPLIED. ✓

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

ON FORECASTLE: 1 AIR PIPE 18" x 3½" TO FORE PEAK TANK. } WOOD PLUGS SUPPLIED. ✓
ON POOP DECK: 1 " " 18" x 3½" AFTER PEAK TANK.

Particulars of Gangway Cargo and Coaling Ports:—

NONE. ✓



Particulars of Scuppers and Sanitary Discharge Pipes —

4 SCUPPERS IN WELL THROUGH STRINGER ANGLE. /
SANITARY DISCHARGE PIPES FROM POOP SPACE ONLY; ALL FITTED WITH STORMVALVE OF SUBSTANTIAL
CONSTRUCTION AT SHIP'S SIDE. — 2

Particulars of Side Scuttles:

SIDE SCUTTLES IN ERECTIONS ONLY. /
ALL OF SUBSTANTIAL CONSTRUCTION AND FITTED WITH EFFICIENT HINGED STL. DEADLIGHTS. /

Particulars of Guard Rails:—

STL. BULWARKS IN WELL & EXTENT AS PER SKETCH ON P.4; HEIGHT 39". CONSTRUCTION AND SUPPORT
SATISFACTORY.
OPEN RAIL: ON FLE, POOP AND REMAINDER OF WELL: HEIGHT 39", 3 RODS, STANCHIONS 4'-6" TO 5'-0" APART. /

Particulars of Gangways, Lifelines, etc.:—

SUITABLE PROVISION MADE FOR RIGGING LIFELINES IN ANY PART OF THE SHIP WHICH MIGHT HAVE TO BE
USED BY THE CREW IN THE REGULAR WORKING OF THE VESSEL.
PROPER GANGWAY FITTED OVER TRUNKS FROM POOP TO FORECASTLE WITH STANCHIONS & 1 STL. WIRE. /

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Well	46.5'	39"	OPEN RAIL OVER 43.5'			38.25' OPEN RAIL. /
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. ▼						

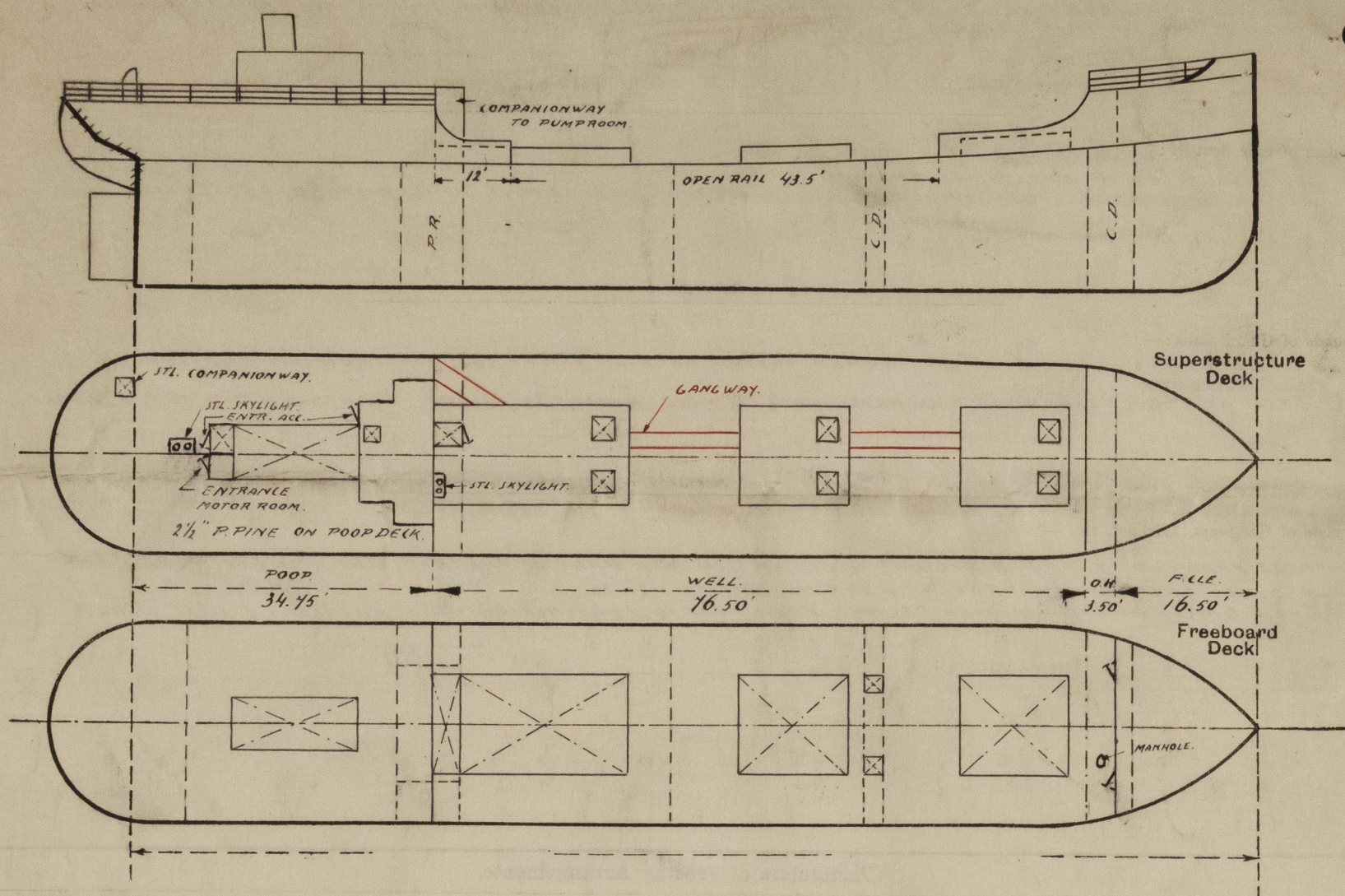
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.30	.30	5 x 2 1/2 x .32	30"	ANGLE LUGS TOP & BOTTOM	NONE	▼	▼
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead ... ..	.24	.24	4 2 1/2 x 2 1/2 x .26	24"	▼	4'-0" x 1'-10 1/2"	22 1/2"	▼
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super- structure Decks ... ..	.26	.26	4 2 1/2 x 2 x .24	28"	BKTS. TOP NO ATTACHMENT IN WAY OF SKYLIGHT	4'-6" x 2'-2"	15"	6'-3"
Machinery Casings within Superstruc- tures 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	NO OPENINGS. /
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead	STL. HINGED DOORS, OPERATED FROM BOTH SIDES. ✓
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	
Exposed Machinery Casings on Super- structure Decks	STL. HINGED DOOR, OPERATED FROM BOTH SIDES. ✓
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 shown on the following sketches:—



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

THIS VESSEL HAS BEEN BUILT IN ACCORDANCE WITH THE APPROVED PLANS.

Builder's name and yard number *N.V. INDUSTRIEEL MAATSCHAPPY "DE NOORD" ; N° 558*

Names of sister ships *M.V. "RUDDERMAN"*

Owners *C. ROWBOTHAM & SONS . LONDON.*

Fee *40.-* will be Received by me *C. H. Odde.*

APPLICATION FORM WILL FOLLOW.