

Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No.

(For London Office only.)

10 NOV 1932.

Computation of Freeboard for , Tanker

Living Peep, Bridge & Forecastle.

Port of Survey LOS ANGELES, CALIF.

Date of Survey October 11, 1932.

Name of Surveyor W.J. Alderson.

Particulars of Classification *100 A1

Carrying Petroleum in bulk. ☒

Ship's Name "VELMA"

Nationality and Port of Registry Norwegian Oslo

Official Number ----

Gross Tonnage 9720

Date of Build 1930

8

Moulded Dimensions: Length 474' Breadth 64' Depth 37'-3"

Moulded draught at moulded draught = 85 per cent. of moulded depth 22139 tons

Content of fitness for use with Tables .807

Depth for Freeboard (D) 37.25'

Moulded depth 37.3"

Stringer plate .875"

Sheathing on exposed deck .07

$T \left(\frac{L-S}{L} \right) =$ ✓

Depth for Freeboard (D) = 37.32

Depth correction

(a) Where D is greater than Table depth (D-Table depth) R = (37.32 - 31.60) 3 = +17.16"

(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓

If restricted by superstructures ✓

Round of Beam correction

Moulded Breadth (B) 64.0'

Standard Round of Beam = $\frac{B \times 12}{50} =$ 15.36

Ship's Round of Beam = 15.75"

Difference .39

Restricted to ✓

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{.39}{4} \times .6257 = .06$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Peep enclosed ...	103	103.00	8.25'	✓	103.00
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	35.16'	35.16	8.25'	✓	35.16
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...	39.25'	39.25	8.25'	✓	39.25
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	177.41	177.41			177.41

Standard Height of Superstructure 7.5" " R.Q.D. ✓Deduction for complete superstructure 42.00Percentage covered $\frac{S}{L} =$ 37.43%" $\frac{S_1}{L} =$ 37.43%" $\frac{E}{L} =$ 37.43%

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. TANKER 28.43%

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = 42.00 \times .2843 = - 11.94

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	57.40	1		57.40	38.00	38.00	1		38.00
1/2 L from A.P. ...	5.16	4		20.64	5.16	5.16	4		20.64
1/2 L ...	12.64	2		25.28	0	0	2		0
Amidships ...	✓	4		0	0	0	4		0
1/2 L from F.P. ...	19.80	2		39.60	19.80	19.80	2		39.60
1/2 L ...	19.80	4		79.20	19.80	19.80	4		79.20
F.P. ...	76.00	1		76.00	76.00	76.00	1		76.00
Total ...	516.60			213.84					213.84

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ $\frac{302.76}{18} \times (.75 - .1871) = + 9.47$ If limited on account of midship superstructure. ✓Mean actual sheer aft = DeficientMean actual sheer forward = DeficientLength of enclosed superstructure forward of amidships = Tanker" aft of " = ✓

.5629

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 37.32

Summer freeboard = 8.62

Moulded draught (d) = 28.70

Addition for Tropical freeboard and addition for

Winter freeboard = 7.7 - 7.4= 184

Addition for Winter North Atlantic Freeboard (if

required) = 4.74 = 4 3/4 = 121

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 20,002

Tons per inch immersion at summer load water line

 $T =$ 62.88Deduction = $\frac{\Delta}{40 T}$ inches= 7.95= 8"= 203

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.807 + .68}{1.36} = \frac{1.487}{1.36}$ Depth Correction ... 17.16 ✓Deduction for superstructures ... 11.94 ✓Sheer correction ... 9.47 ✓Round of Beam correction06 ✓Correction for Thickness of Deck amidships ... ✓ ✓Other corrections, scantlings, etc. ... ✓ ✓26.63 12.00 + 14.63Summer Freeboard = 103.41

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:-

Tropical Fresh Water Line above Centre of Disc 15.14" = 387.7Fresh Water Line " " 8.7" = 203Tropical Line " " 7 1/4" = 184Winter Line below " " 7 1/4" = 184Winter North Atlantic Line " " 12.1" = 3058' - 7 1/2" = 26297' - 4 1/4" = 22427' - 11 1/2" = 24268' - 0 1/4" = 24459' - 2 3/4" = 28139' - 7 1/2" = 2934RECEIVED
4 FEB 1937MARKING FORM
Norwegian 1909 Plan
assigned

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		No.1	19	2 on Main	2 on Poop	1 on F'castle			
Dimensions of Hatchway		6'9"x10'	2'6"x5'9"	2'0"x2'6"	3'8"x2'0"	2'0"x2'6"			
COAMINGS	Height above Deck	33"	36"	36"	36"	36"			
	Thickness	7/16"	7/16"	3/8"	3/8"	3/8"			
	Stiffeners	7/16"	7/16"	3/8"	3/8"	3/8"			
	Brackets, Stays	---	---	---	---	---			
HATCH BEAMS	Number	---	---	---	---	---			
	Spacing	---	---	---	---	---			
	Scantling and Sketch	---	---	---	---	---			
	Bearing Surface	---	---	---	---	---			
FORE AND AFTERS	Number	---	---	---	---	---			
	Spacing	---	---	---	---	---			
	Unsupported Lengths	---	---	---	---	---			
	Scantling and Sketch	---	---	---	---	---			
HATCH COVERS	Material	Steel	Steel	Wood	Wood	Steel			
	Thickness	7/16"	7/16"	2 1/2"	2 1/2"	3/8"			
	How fitted	Jointed	Jointed	---	---	W.T. Joint			
	Bearing Surface	& screw dogs	& screw dogs	---	---	& dogs			
Spacing of Cleats		---	---	18"	24"	---			
Number of Tarpaulins		---	---	2	2	---			
*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 fiddley, funnel and ventilator coamings:— Fiddley Openings have steel gratings & permanently hinged steel covers.
 Boat Deck. Ventilators 2 - 27" dia. 3 ft. coamings to E.R.
 2 - 12" and 1 - 16" to accommodations, coamings 36" high.
 Fiddley Top 3 - 24" dia. 3 ft. coamings.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

None outside houses.
 Main Pump Room House on After Deck: 10'6" x 5'6" x 8 ft. high. Plating 5/16". Deck angle 3 1/2"x3 1/2"x5/16".
 One W.T. door at after end 5'6" x 2'0" secured by dogs operated on both sides. *Plating 12".*

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

On Poop:— 6 - 15" dia. with 36" coamings. 1 - 12" with 36" coamings.
 After end of after well: 2-24" carried above boat deck secured at poop deck by plate and angles.
 1-12" with 36" coamings. 2 -36" to pump room 19'6" high.
 Fore end of forward well: 2 -12" with 36" coamings.
 Forecastle: 4 - 12" with 36" coamings. All ventilators with 36" coamings fitted with plugs and canvas covers.

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

All tank air pipes connected to outlets carried high up on masts. Valves at each hatch coaming.
 Poop: 2 - 3" dia. 2'3" high, 2 - 2" dia. 3 ft. high. After Well: 2 -4" dia. 7'6" high. 2 -4" dia. 3'2"
 2 - 3 1/2" dia. 7'6" high. Forward Well: 4 - 3" dia. 3 ft. high. 2 -4" dia. 3 ft. high.

All air pipes are fitted with screwed plugs to part projecting below the wire gauge screens.

Particulars of Gangway Cargo and Coaling Ports:—

None.

Particulars of Scuppers and Sanitary Discharge Pipes —

None from any space below the freeboard deck.

All discharges from scuppers fitted with storm valves.

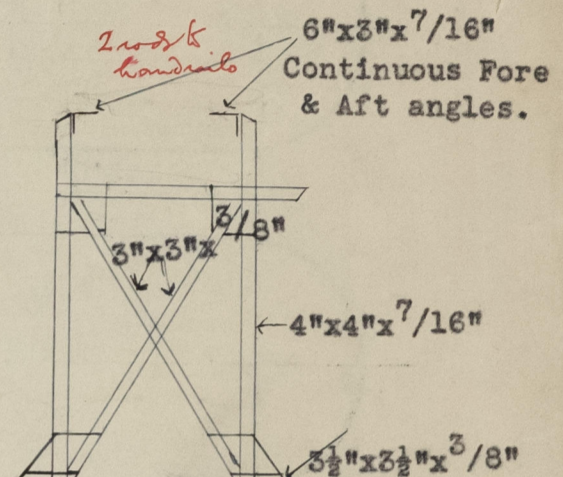
Particulars of Side Scuttles:

None below the freeboard deck. All scuttles in Poop Bridge & Forecastle fitted with C.I. dead lights.

Particulars of Guard Rails:— Poop & Forecastle, and Rails & Stanchions 3'9" high spaced 4'8" on Poop. 3'9" on F'castle.
 Three Rails.
 Bridge Bulwark plate & rail 3'0" high 1/4" plate.
 Forward & After Wells: Rails & Stanchions 5'5" spacing. 3'6" high, three rails.

Particulars of Gangways, Lifelines, etc.:— From Poop to Bridge & Bridge to Forecastle.
 Rails & Stanchions 3'6" high on both sides of the fore and aft gangway.

Gangway supports
8 ft. apart



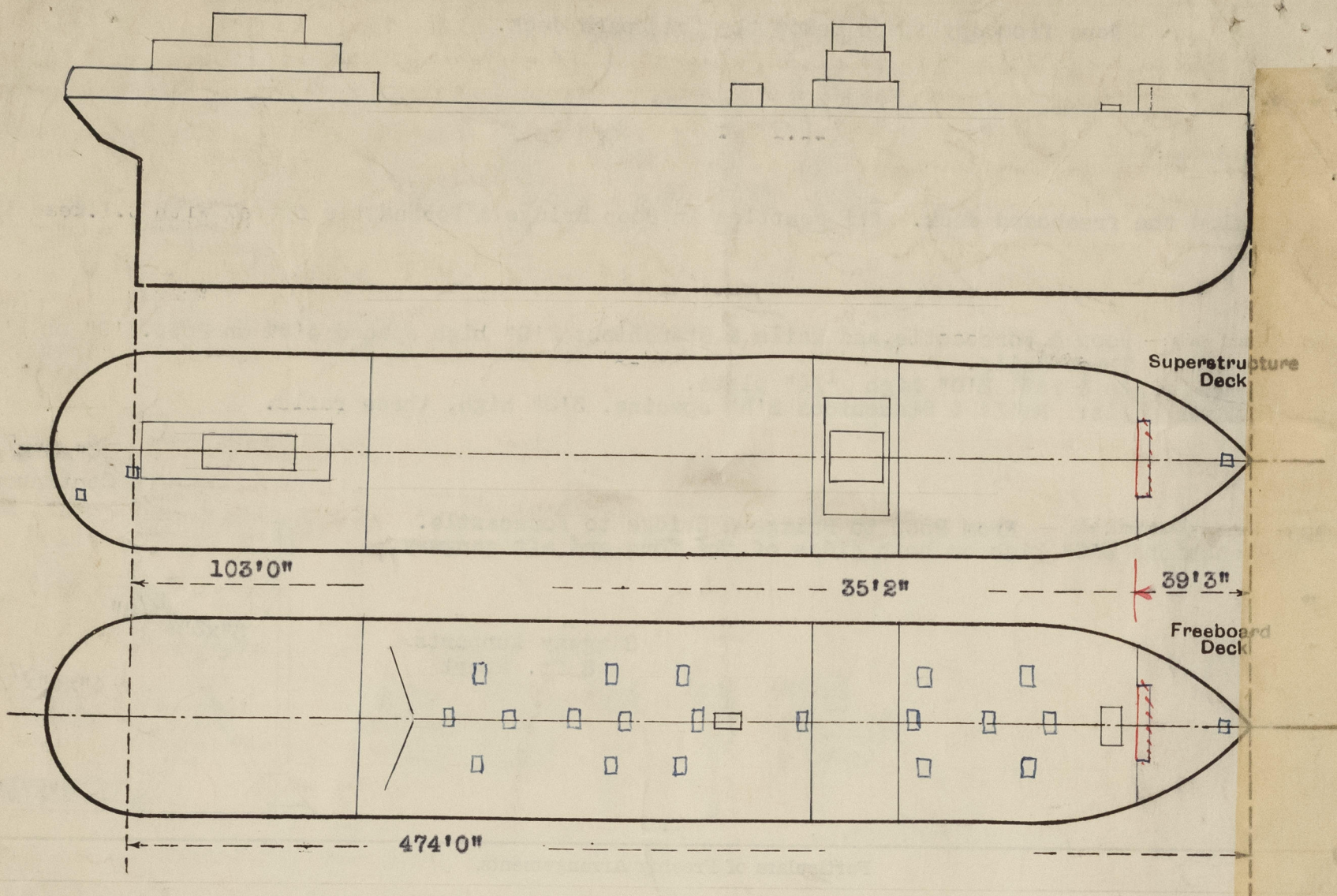
Particulars of Freeing Arrangements.						
	Length of bulwark No bulwarks	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	189'9"	All Rails & Stanchions.	---	---	---	---
Forward Well	107'6"					
State position of each freeing port ... After Well: --- (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	17x3 1/2 x 7/16	3/8"	10x3 1/2 x 7/16	25 1/2"	Clips top & bottom	None	---	8'3"
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	13 1/2 x 3 1/2 x 7/16	5/16"	6"x3"x3/8"	2'9"	No brackets	5'x3' 2"	22"	8'3"
Bridge, Forward Bulkhead	13 1/2 x 3 1/2 x 7/16	3/8"	9"x3 1/2 x 7/16	2'9"	Brackets top and bottom	5'x3'	22"	8'3"
Forecastle Bulkhead	13x3x3/8	1/4"	4'x3"x3/8"	2'6"	No brackets	5'x3'	22"	8'3"
Trunk, Aft	---							
Trunk, Forward	---							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	---							
Exposed Machinery Casings on Superstructure Decks	18x3 1/2 x 7/16	3/8"	5x3x5/16	2'9"	Brackets on some stiffeners.	9 doors at sides 5'x3'2" to 2'6"	15"	7'9"
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	No openings. 8 Port lights 13" dia. with glasses & hinged deadlights.
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	Two openings fitted with bolted & jointed plates. Cannot be manipulated from both sides.
Bridge, Forward Bulkhead	Two openings fitted with hinged doors & bolted joints. -do- -do-
Forecastle Bulkhead	Two openings fitted with doors & bolted joints. -do- -do-
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	---
Exposed Machinery Casings on Superstructure Decks	Doors at sides operated from both sides. (1 P+S hinged steel)
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:—

Two longitudinal bulkheads in way of the oil tanks. Machinery aft.

The vessel was examined on dry dock at this time. The bottom and rudder were in good order.

W. J. Alderson

Builder's name and yard number **Gotaverken A/B**

Names of sister ships

Owners **Skibs.A/S Nordheim. (Halfdan Ditlev-Simonsen & Co.Mgrs.)**

Fee £ **To be charged.**

Received by me

110.00
2.50

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