

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.Index. No. _____
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey _____
having <u>a complete superstructure deck</u> <u>with lounge opening.</u>					Date of Survey <u>24/9/31</u>
(Type of Superstructures.)					Name of Surveyor _____
Ship's Name <u>Vil Maersk</u> <u>Gertinde Maersk</u>	Nationality and Port of Registry <u>Danish</u>	Official Number <u>✓</u>	Gross Tonnage <u>✓</u>	Date of Build <u>1930</u>	Particulars of Classification <u>+100M</u> <u>with freeboard</u>
Moulded Dimensions: Length <u>418.0</u> Breadth <u>54.50</u> Depth <u>28.61</u>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>11765</u> tons					
Coefficient of fineness for use with Tables <u>744</u>					

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth ...	<u>28.61</u>	(a) Where D is greater than Table depth (D-Table depth) R = $(28.65-27.87) \times 3$ <u>= +2.34</u>		Moulded Breadth (B)	<u>54.5</u>
Stringer plate ...	<u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <u>-</u>		Standard Round of Beam = $\frac{B \times 12}{50}$	<u>13.08</u>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	<u>✓</u>			Ship's Round of Beam	<u>13.75</u>
Depth for Freeboard (D) =	<u>28.65</u>	If restricted by superstructures		Difference	<u>.67</u>
				Restricted to	<u>✓</u>
				Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right)$	<u>= $\frac{.67}{4} \times .005$ = Nil</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<u>32.96</u>	<u>32.96</u>	<u>9.58</u>	<u>✓</u>	<u>32.96</u>	Standard Height of Superstructure <u>7.5</u>
„ overhang ...	<u>.29</u>	<u>.14</u>	<u>✓</u>		<u>.14</u>	„ „ R.Q.D. <u>✓</u>
R.Q.D. enclosed ...						Deduction for complete superstructure <u>42</u>
„ overhang ...						Percentage covered $\frac{S}{L} =$ <u>100%</u>
File Bridge enclosed ...	<u>380.21</u>	<u>380.21</u>	<u>9.58</u>	<u>✓</u>	<u>380.21</u>	„ „ $\frac{S_1}{L} =$ <u>99.47%</u>
„ overhang aft ...	<u>.29</u>	<u>.22</u>	<u>✓</u>		<u>.22</u>	„ „ $\frac{E}{L} =$ <u>99.47%</u>
„ overhang forward ...						Percentage from Table, Line A. <u>✓</u>
„ „ enclosed ...						(corrected for absence of forecastle (if required))
„ overhang ...						Percentage from Table, Line B. <u>99.34%</u>
Trunk aft ...						(corrected for absence of forecastle (if required))
„ forward ...						Interpolation for bridge less than .2L (if required) <u>✓</u>
Tonnage opening aft ...	<u>4.25</u>	<u>+2.23</u>	<u>= $\frac{1}{2}$ diff</u>		<u>2.23</u>	Deduction = <u>42 × 99.34% = -41.72</u>
„ „ forward						
Total ...	<u>418.00</u>	<u>415.76</u>			<u>415.76</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft = Excess	Mean standard sheer aft
A.P. ...	51.8 ✓	1		51.80	69.12 + 25 =	94.12 ✓	1		94.12 ✓		
$\frac{1}{4}$ L from A.P. ...	23.05 ✓	4		92.20	29.25 ✓	39.83 ✓	4		159.32 ✓	Mean actual sheer forward = Excess	Mean standard sheer forward
$\frac{2}{4}$ L „ ...	5.7 ✓	2		11.40	8.88 ✓	12.09 ✓	2		24.18 ✓		
Amidships ...	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships =	
$\frac{3}{4}$ L from F.P. ...	11.4 ✓	2		22.80	13.25 ✓	16.35 ✓	2		32.70 ✓		
$\frac{1}{4}$ L „ ...	46.11 ✓	4		184.44	47.75 ✓	58.91 ✓	4		235.64 ✓	„ „ aft of „ =	
F.P. ...	103.6 ✓	1		103.60	107.00 + 25 =	132.00	1		132.00 ✓		
Total ...				466.24 ✓					677.96 ✓		

8 standard heights

Difference

7'-6"

2'-1"

= 25"

CS. 5

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{211.72}{18} \times 25 = -294$

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 =	<u>28.65</u>
Summer freeboard =	<u>3.21</u>
Moulded draught (d) =	<u>25.44</u>

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 6.36

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

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

$T =$

Deduction = $\frac{\Delta}{40T}$ inches

$=$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\times \frac{744 + .65}{1.36} =$

Depth Correction ...	<u>2.34</u>
Deduction for superstructures ...	<u>41.72</u>
Sheer correction ...	<u>2.94</u>
Round of Beam correction ...	<u>-</u>
Correction for Thickness of Deck amidships ...	<u>-</u>
Other corrections, scantlings, etc. ...	<u>-</u>

77.16
80.79

+	-
<u>2.34</u>	<u>-</u>
<u>-</u>	<u>41.72</u>
<u>-</u>	<u>2.94</u>
<u>-</u>	<u>-</u>
<u>-</u>	<u>-</u>
<u>2.34</u>	<u>44.66</u>
<u>-</u>	<u>42.32</u>
<u>✓</u>	<u>38.47</u>

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

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

Tropical Line

Winter Line

Winter North Atlantic Line

12.72 = 323.44

6.36 = 162.24

6.36 = 162.24

6.36 = 162.24

6.36 = 162.24

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

38.47 = 0.977 metres

25.75 = 0.654

32.11 = 0.815

32.11 = 0.815

44.83 = 1.139

44.83 = 1.139

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
SHELTER DECK										
Description of Hatchway	Nº1	Nº2	Nº3	Nº4	Nº5	Nº1	Nº2	Nº3	Nº4	Nº5
Dimensions of Hatchway	34'3" x 20'0"	39'2" x 20'0"	41'1" x 20'0"	39'2" x 20'0"	31'11" x 20'0"	36'0" x 20'0"	41'1" x 20'0"	27'5" x 20'0"	38'6" x 20'0"	31'5" x 20'0"
COAMINGS										
Height above Deck	52	52	52	50	46			230 x 90 x 11		
Thickness										
Sides										
Stiffeners										
Brackets, Stays										
HATCH BEAMS										
Number	7	7	8	7	6	7	8	5	7	6
Spacing										
Scantling and Sketch	7" 100 x 80 x 12 17 x 36 120 x 80 x 12	7" 100 x 80 x 12 12 1/2 x 34 100 x 80 x 12	7" 100 x 80 x 12 12 1/2 x 34 100 x 80 x 12	7" 100 x 80 x 12 12 1/2 x 34 100 x 80 x 12	7" 100 x 80 x 12 12 1/2 x 34 100 x 80 x 12	7" 100 x 80 x 12 18 x 40 100 x 80 x 12	7" 100 x 80 x 12 18 x 40 100 x 80 x 12	7" 100 x 80 x 12 17 x 40 100 x 80 x 12	7" 100 x 80 x 12 19 1/2 x 42 100 x 80 x 12	7" 100 x 80 x 12 18 x 40 100 x 80 x 12
Bearing Surface										
FORE AND AFTERS										
Number										
Spacing										
Unsupported Lengths										
Scantling and Sketch										
Bearing Surface										
HATCH COVERS										
Material		PINE						PINE		
Thickness	3"	3"	2 1/2"	2 1/2"	3"			3"		
How fitted										
Bearing Surface										
Spacing of Cleats										
Number of Tarpaulins										

*Are wood fore and afters steel shod at all bearing surfaces? none.
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 fiddle, funnel and ventilator coamings:—

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:—

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

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

Particulars of Gangway Cargo and Coaling Ports:—

Particulars of Scuppers and Sanitary Discharge Pipes

Particulars of Side Scuttles:—

Particulars of Guard Rails:—

Particulars of Gangways, Lifelines, etc.:—

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well			2.5 x 2.5			
Forward Well						
State position of each freeing port (F. and A. position and height above deck edge) } After Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— } Forward Well:— 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								
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard 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								
Particulars of Closing Appliances (state if capable of being manipulated from both sides).								
Poop Bulkhead								
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Exposed Machinery Casings on Freeboard 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								

Diagram illustrating the layout of a ship's hull, showing the Superstructure Deck and Freeboard Deck, with various compartments and openings.

Top Section (Superstructure Deck):

- Tonnage opening $4'-3" \times 20'-3"$
- Freeing ports
- deep hot or Tank Room
- deep Tank

Middle Section (Superstructure Deck):

- Tonnage opening $4'-3" \times 20'-3"$
- Hatches: N°5 HATCH, N°4 HATCH, CASING, N°3 HATCH, N°2 HATCH, N°1 HATCH
- Superstructure Deck

Bottom Section (Freeboard Deck):

- Tonnage openings $4'-1" \times 3'-1"$
- Hatches: N°5, N°4, CASING, O.T. HATCH, N°3, N°2, N°1
- Tonnage openings $5'-6" \times 4'-1"$
- Freeboard Deck

Names of sister ships

Fee £ : : Received by me