

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

MOTOR VESSEL.

Computation of Freeboard for ~~Steamer, Sailing Ship, Tugboat~~

having ~~compl. superstructure with tonnage opening in superstructure deck,~~
~~and poop & forecastle fitted in superstructure deck.~~
 (Type of Superstructures.)

Port of Survey HamburgDate of Survey 7th July 1932Name of Surveyor Th. GoringParticulars of Classification +100 A1
with reduced
Carrying Viable Oil in dup tanks

Ship's Name "DEIDO" Nationality and Port of Registry British London Official Number 160370 Gross Tonnage 5878 Date of Build 1928
3 mo.
 Moulded Dimensions: Length 355.0 Breadth 49.0 Depth 24.8
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 8060 tons
 Coefficient of fineness for use with Tables .774

Depth for Freeboard (D)

Moulded depth ... 24.67
 Stringer plate ... (.38) ... 0.032
 Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$ ✓
 Depth for Freeboard (D) = 24.70

Depth correction

(a) Where D is greater than Table depth
 (D-Table depth) R =
(24.70-23.67) 2.731 = + 2.81 ✓
 (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) 49
 Standard Round of Beam = $\frac{B \times 12}{50} =$ 11.76 ✓
 Ship's Round of Beam = 12.4 ✓
 Difference .49 ✓
 Restricted to ✓
 Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L} \right) =$.49 \times .0062 = NIL

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>39.75</u>	<u>39.75</u>	<u>8.75</u>	<u>✓</u>	<u>39.75</u>
„ overhang ...	<u>mae</u>	<u>.25</u>			<u>.25</u>
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	<u>310.25</u>	<u>310.25</u>	<u>8.75</u>	<u>✓</u>	<u>310.25</u>
„ overhang aft ...	<u>310.75</u>	<u>.37</u>	<u>8.75</u>	<u>✓</u>	<u>.37</u>
„ overhang forward ...					
F'cle enclosed ...					
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...	<u>4.00</u>	<u>2.19</u>	<u>8.75</u>	<u>✓</u>	<u>2.19</u>
„ „ forward ...					
Total ...	<u>355.00</u>	<u>352.81</u>			<u>352.81</u>

Standard Height of Superstructure 8.75 7.05 ✓„ „ R.Q.D. ✓Deduction for complete superstructure 39.00 ✓Percentage covered $\frac{S}{L} =$ 100% ✓„ $\frac{S_1}{L} =$ 99.38% ✓„ $\frac{E}{L} =$ 99.38% ✓Percentage from Table, Line A. 99.24% ✓
 (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 = 39.00 \times .9924 = 38.70 ✓

SHEER CORRECTION.

Actual T.D. Alt. = 105 ✓
 Standard T.D. Alt. = 84.6 ✓
 Difference 20.4 ✓

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>45.50</u>	<u>1</u>	<u>✓</u>	<u>45.50</u>	<u>36</u>	<u>36.00</u>	<u>45.50</u>	<u>1</u>	<u>45.50</u>
$\frac{1}{4}$ L from A.P. ...	<u>20.25</u>	<u>4</u>	<u>✓</u>	<u>81.00</u>	<u>14.5</u>	<u>15.20</u>	<u>20.25</u>	<u>4</u>	<u>81.00</u>
$\frac{2}{4}$ L „ ...	<u>5.00</u>	<u>2</u>	<u>✓</u>	<u>10.00</u>	<u>4</u>	<u>3.80</u>	<u>5.00</u>	<u>2</u>	<u>10.00</u>
Amidships ...	<u>✓</u>	<u>4</u>	<u>✓</u>	<u>✓</u>	<u>0</u>	<u>✓</u>	<u>✓</u>	<u>4</u>	<u>✓</u>
$\frac{3}{4}$ L from F.P. ...	<u>10.00</u>	<u>2</u>	<u>✓</u>	<u>20.00</u>	<u>7</u>	<u>6.90</u>	<u>9.50</u>	<u>2</u>	<u>19.00</u>
$\frac{1}{4}$ L „ ...	<u>40.50</u>	<u>4</u>	<u>✓</u>	<u>162.00</u>	<u>27.5</u>	<u>27.65</u>	<u>38.45</u>	<u>4</u>	<u>153.80</u>
F.P. ...	<u>91.00</u>	<u>1</u>	<u>✓</u>	<u>91.00</u>	<u>66</u>	<u>66.00</u>	<u>86.40</u>	<u>1</u>	<u>86.40</u>
Total ...				<u>409.50</u>					<u>395.70</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) =$ $\frac{13.80}{18} \times \frac{25}{25} =$ + .19 ✓

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 = 24.70 ✓
 Summer freeboard = 2.19 ✓
 Moulded draught (d) = 22.51 ✓

Deduction for Tropical freeboard and addition for
 Winter freeboard = $\frac{d}{4}$ inches = 5.63 = 5 $\frac{3}{4}$ ✓

Addition for Winter North Atlantic Freeboard (if required =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 8719 ✓

Tons per inch immersion at summer load water line

 $T =$ 34.72 ✓Deduction = $\frac{\Delta}{40T}$ inches= 6.28 = 6 $\frac{1}{4}$ ✓

TABULAR FREEBOARD 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. ...

57.95 ✓
61.95 ✓

+	-
<u>2.81</u>	<u>✓</u>
<u>-</u>	<u>38.70</u> ✓
<u>.19</u>	<u>✓</u>
<u>-</u>	<u>✓</u>
<u>-</u>	<u>✓</u>
<u>-</u>	<u>✓</u>
<u>3.00</u>	<u>38.70</u> ✓

Summer Freeboard = 26.25 ✓

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

Tropical Fresh Water Line above Centre of Disc ... 12 ✓
 Fresh Water Line „ „ ... 6 $\frac{1}{4}$ ✓
 Tropical Line „ „ ... 5 $\frac{3}{4}$ ✓
 Winter Line below „ „ ... 5 $\frac{3}{4}$ ✓
 Winter North Atlantic Line „ „ ... ✓

Tropical Fresh Water Freeboard ... 2 $\frac{1}{4}$ ✓
 Fresh Water „ „ ... 1 $\frac{1}{8}$ ✓
 Tropical „ „ ... 1 $\frac{1}{8}$ ✓
 Winter „ „ ... 2 $\frac{1}{8}$ ✓
 Winter North Atlantic „ „ ... ✓

12 JUL 1932

28 SEP 1932

16 JUL 1932

00570-00576-01462

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
ON SUPERSTRUCTURE DECK					ON FREEBOARD DECK				
Description of Hatchway	No. 1	No. 2	No. 3	No. 4	TONNAGE OPENING	No. 1	No. 2	No. 3	No. 4
Dimensions of Hatchway	22' 6"	27' 6"	25' 0"	25' 0"	4'	22' 6"	27' 6"	25' 0"	25' 0"
	17' 0"	17' 0"	17' 0"	17' 0"	17' 0"	17' 0"	17' 0"	17' 0"	17' 0"
COAMINGS	Height above Deck	30"	30"	30"	30"	9"	9"	9"	9"
	Thickness	44"	44"	44"	44"	44"	44"	44"	44"
	Sides	44"	44"	44"	44"	44"	44"	44"	44"
	Ends	44"	44"	44"	44"	44"	44"	44"	44"
HATCH BEAMS	Stiffeners	Ball angle	Ball angle	Ball angle	Ball angle	Ball angle	do.	do.	do.
	Brackets, Stays								
	Number	38"	38"	35"	35"	38"	38"	35"	35"
	Spacing	4' 3" x .42	4' 3" x .42	4' 3" x .42	4' 3" x .42	4' 3" x .42	4' 3" x .42	4' 3" x .42	4' 3" x .42
FORE AND AFTERS	Scantling and Sketch								
	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"
	Number	none	none	none	none	none	none	none	none
	Spacing	none	none	none	none	none	none	none	none
HATCH COVERS	Material	Pine	do.	do.	do.	Pine	do.	do.	do.
	Thickness	3"	do.	do.	do.	3"	do.	do.	do.
	How fitted	free & aft	do.	do.	do.	free & aft	do.	do.	do.
	Bearing Surface	3"	do.	do.	do.	3"	do.	do.	do.
Spacing of Cleats	24"	do.	do.	do.	none	24"	do.	do.	do.
Number of Tarpaulins	3	do.	do.	do.	3	none	do.	do.	do.

*Are wood fore and afters steel shod at all bearing surfaces? *none fitted*
 Are battens and wedges efficient and in good condition? *yes.*
 Are tarpaulins in good condition and in accordance with rule requirements? *yes.*
 Are lashings provided in accordance with rule requirements? *yes.*

Particulars of fiddley, funnel and ventilator coamings:—
Fiddley top 4" above boat deck.
No openings fitted.
Funnel and ventilator coamings efficiently riveted to fiddley deck.

Particulars of Flush Bunker Scuttles:—
none.

Particulars of Companionways:—
none.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
On superstructure deck forward: 6 ventilators, 22" diam. coaming 9/16" thick, 37" high.
On superstructure deck aft: 8 " 18" diam. " 9/16" " 37" high.
2 " 18" diam. " 9/16" " 30" high.
2 " 8" diam. " 9/16" " 36" high.
2 " 6" diam. " 9/16" " 36" high.
All ventilators are provided with efficient wood and canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
All air pipes to double bottom tanks on superstructure deck are of substantial construction and the height from deck to the opening is 24". All air pipes fitted with caps and made weather tight by canvas covers.
2 goose necks to palm oil tanks also 4 goose necks to raffia dunnage and lubricating oil tank on each side are 24" high above deck, closed by canvas covers.

Particulars of Gangway Cargo and Coaling Ports:—
none.

Deido

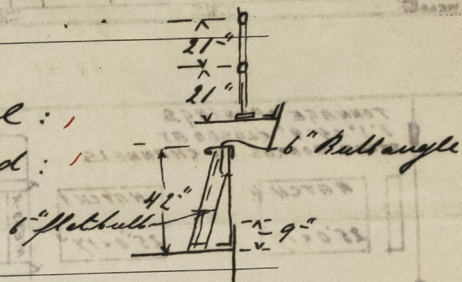
Particulars of Scuppers and Sanitary Discharge Pipes — On superstructure deck 7 scuppers 6" x 4 1/2" above deck on each side. On foreboard deck within superstructure 5 scuppers 3 1/2" diam. on each side, fitted with storm valves. One scupper each side 3 1/2" diam. with storm valve fitted in tannage space. All sanitary discharge pipes for crew spaces and accommodations midships are laid above the foreboard deck and fitted with storm valves.

Particulars of Side Scuttles:

No side scuttles below superstructure deck.

Particulars of Guard Rails:—

On fore cable & poop deck open rail: On superstructure deck: Bulwark fitted:



Particulars of Gangways, Lifelines, etc.:—

No gangways fitted. Lifelines are fitted on superstructure deck on both sides, extending forward from the midship deck house to the forecable and aft from the midship deck house to the poop.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
ON SUPERSTRUCTURE DECK	277'	42"	27" x 18"	8	27.0 sq ft	27.7
Forward Well						

State position of each freeing port (F. and A. position and height above deck edge) State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:

After Well:— Forward Well:—

Freeing ports fitted with bars.

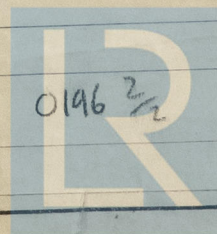
Additional area where sheer is less than standard.

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 ON FREEB. DECK	5/16"	5/16"	flanged 2 1/2"	36"	none	20' x 5'6"	24"	8'9"
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead ON FREEB. D.	5/16"	5/16"	flanged 2 1/2"	36"	none	20' x 4'8"	24"	8'9"
Bridge, Forward Bulkhead ON FREEB. D.	5/16"	5/16"	5 x 3 = 4 1/2" 8 x 3 = 4 1/2"	24"	Bulkhead, Deck, top & bottom	none		8'9"
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	5/16"	4/16"	covered by a steel deck house 2 3/8 x 5/8	30"	none	none		8'9"
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead ON FREEB. DECK	Two hinged steel doors; fastened with lock & key only.
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead ON FREEB. D.	Two tannage openings closed by storm boards, full height in riveted channels.
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	



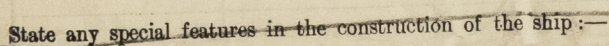
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A hand-drawn cross-section diagram of a ship's hull, showing various compartments and structural elements. The diagram is labeled with the following text:

- FREEING PORT INTONNAGESPACE** (at the top, with a note: "18" x 14" CLOSED BY HINGED WASH PARTS")
- OPEN RAIL** (on the left and right sides)
- STEEL PLANK** (on the left side)
- CARGO** (in the upper left compartment)
- BAGGAGE** (in the lower left compartment)
- BULWARK** (in the upper middle compartment)
- DECKHOUSE** (in the upper middle compartment)
- FREEBOARD DECK** (in the middle compartment)
- MOTOR ROOM** (in the lower middle compartment)
- OPEN RAIL** (on the right side)
- CREW** (in the upper right compartment)
- STORE** (in the upper right compartment)
- STORE** (in the middle right compartment)
- RECREATION** (in the lower right compartment)
- F.P. TANK** (in the lower right compartment)
- SUPERSTR. DECK** (on the far right)
- FREEBOARD DECK** (on the far right)

The diagram shows a cross-section of the ship's hull, with various compartments and structural elements labeled. The compartments are arranged in a longitudinal section, showing the internal layout of the ship. The hull is shown in profile, with the deck and various internal spaces clearly delineated. The labels are handwritten in capital letters, and the diagram is drawn with simple lines and shading to represent the ship's structure.



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