

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

16 JAN 1933

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~  
having **BRIDGE HOUSE ONLY**

Port of Survey **DURBAN**

Date of Survey **DECEMBER 1932**

Name of Surveyor **C. H. Boyle**

Particulars of Classification **100 A.1.**  
**S.S. Nuc. No. 3-7, 20.**  
**S.S. P.N.E. No. 2-28**

Ship's Name **Laeveld**  
**"HOMEFORD"**

Nationality and Port of Registry **BRITISH DURBAN**

Official Number **144906**

Gross Tonnage **629**

Date of Build **1918**

Moulded Dimensions: Length **170 ft.** Breadth **29.83 ft.** Depth **16.5 ft.**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **1294** tons

Coefficient of fineness for use with Tables **.637** (**.68 rounded**)

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	16.5 ft.	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	29.83 ft.
Stringer plate	.02	(16.52 - 11.33) 1.307 = + 6.78"		Standard Round of Beam = $\frac{B \times 12}{50}$	7.16"
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	✓	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	8"
Depth for Freeboard (D) =	16.52	If restricted by superstructures	✓	Difference	= .84" EXCESS.
				Restricted to	
				Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	= $\frac{.84}{4} \times .6941 = -.15$ "

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	52.0'	52.00	7'-0"	✓	52.00
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	52.0'	52.00			52.00

Standard Height of Superstructure **6.00** /

" " R.Q.D. **✓**

Deduction for complete superstructure **23.00** /

Percentage covered  $\frac{S}{L} = 30.59\%$

" "  $\frac{S_1}{L} = 30.59\%$

" "  $\frac{E}{L} = 30.59\%$

Percentage from Table, Line A. **✓**  
(corrected for absence of forecastle (if required)) **✓**

Percentage from Table, Line B. **19.50%**  
(corrected for absence of forecastle (if required)) **- 5 / = 14.50%**

Interpolation for bridge less than 2L (if required) **✓**

Deduction = **23.00 x .1450 = - 3.33** /

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	27	✓	1	27	31	51.00	1	51	51
1/4 L from A.P. ...	12.01	✓	4	48.04	21	21.80	4	87.20	84
2/4 L " ...	2.97	✓	2	5.94	5	5.20	2	10.40	10.40
Amidships ...	—		4	—	—	—	4	—	—
3/4 L from F.P. ...	5.94	✓	2	11.88	7	9.00	2	18.00	14
1/4 L " ...	24.03	✓	4	96.12	34	34.20	4	136.8	136.8
F.P. ...	54	✓	1	54	66	66.00	1	66	66
Total ...				242.98				361.36	369.40

Mean actual sheer aft =  $\frac{25.66}{13.99} = 83.4\%$  EXCESS.

Mean standard sheer aft =  $\frac{35.66}{27.99} = 27.4\%$  EXCESS.

Length of enclosed superstructure forward of amidships =  $\frac{4}{170} = .024L$

" " aft of " =  $\frac{48}{170} = .28L$

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - \frac{S}{2L}}{.75 - \frac{S}{2L}} \right) = \frac{418.02}{18} \left( \frac{.75 - \frac{52}{2 \times 170}}{.75 - \frac{52}{2 \times 170}} \right) = 4.52$  EXCESS.

If limited on account of midship superstructure.  $-4.19 \times \frac{.124}{.200} = -2.60$  / If limited to maximum allowance of 1 1/2 ins. per 100 ft. **- 2.55** /

Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **16.52** /

Summer freeboard = **1.58** /

Moulded draught (d) = **14.94** /

Correction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = **3.73 = 3 3/4** /

Addition for Winter North Atlantic Freeboard (if required) = **2** /

## 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 = **3 3/4** /

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

Correction for coefficient

	+	-
Depth Correction	6.78	✓
Deduction for superstructures	3.33	✓
Sheer correction	2.55	✓
Round of Beam correction	.15	✓
Correction for Thickness of Deck amidships		✓
Other corrections, scantlings, etc.		✓
	6.78	6.03
Summer Freeboard =	19.05	

**18.30** /

**18.30** /

**87.8** /

**18.1.33** /

**+ .75** /

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

Tropical Fresh Water Line above Centre of Disc	7 1/2
Fresh Water Line	3 3/4
Tropical Line	3 3/4
Winter Line below	3 3/4
Winter North Atlantic Line	5 3/4

Tropical Fresh Water Freeboard	0' - 11 1/2"
Fresh Water	1' - 3 3/4"
Tropical	1' - 3 3/4"
Winter	1' - 10 3/4"
Winter North Atlantic	2' - 0 3/4"



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
FREEBOARD DECK					SUPERSTRUCTURE DECK				
Description of Hatchway	...	...	...	...					
Dimensions of Hatchway	...	...	...	...					
COAMINGS	Height above Deck	...	...	...					
	Thickness	...	...	...					
	Stiffeners	...	...	...					
	Brackets, Stays	...	...	...					
HATCH BEAMS	Number	...	...	...					
	Spacing	...	...	...					
	Scantling and Sketch	...	...	...					
	Bearing Surface	...	...	...					
FORE AND AFTERS	Number	...	...	...					
	Spacing	...	...	...					
	Unsupported Lengths	...	...	...					
	Scantling* and Sketch	...	...	...					
HATCH COVERS	Material	...	...	...					
	Thickness	...	...	...					
	How fitted	...	...	...					
	Bearing Surface	...	...	...					
Spacing of Cleats	...	...	...	...					
Number of Tarpaulins	...	...	...	...					
*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> Yes Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> Yes Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> Yes Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/> Yes									

Particulars of fiddley, funnel and ventilator coamings:—

All of substantial construction and fitted on top of Superstructure deck.  
Fidly gratings fitted with steel hinged covers, permanently attached.

Particulars of Flush Bunker Scuttles:—

NONE

Particulars of Companionways:—

One port and one starboard side of Superstructure deck to Crew's quarters, of steel 5 ft. x 2 ft. x 1/4" thick, fitted with 1 1/4" hardwood doors, capable of being manipulated from both sides.

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

Hold Ventilators at fore end of freeboard deck and also at after end, fitted with steel coamings 36" high. Hold Ventilator on Superstructure deck fitted with steel coaming 16" high. Wood plugs + canvas covers provided.

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

NONE

Particulars of Gangway Cargo and Coaling Ports:—

NONE



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Particulars of Scuppers and Sanitary Discharge Pipes

2 Sanitary discharge pipes starboard side and 1 port side, 4" diam., discharging below the freeboard deck and fitted with N.R. Valves.

Particulars of Side Scuttles:

None below the freeboard deck.

Particulars of Guard Rails:—

5 steel bulwarks 3 ft. high at fore end of freeboard deck and 3 ft. 10 ins. high at after end.

Particulars of Gangways, Lifelines, etc.:—

NONE

Suitable provision made for rigging lifelines in any part of the ship.

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 ... ..	37 <del>41</del> ft.	3'-10"	21" x 15" 18" x 15"	3 2 }	10/4 3.75 Sq. ft.	10.2 <del>11</del> Sq. ft.
Forward Well ... ..	81 <del>86</del> ft.	3'-0"	40" x 15" 18" x 15"	3 2 }	16/4 3.75 Sq. ft.	16.2 <del>17</del> Sq. ft.

State position of each freeing port ... .. (F. and A. position and height above deck edge)

After Well:— Both abays mid length, 3½" above deck.  
Forward Well:— Both abays mid length, 3½" above deck.

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—

Hinged shutters.

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 ... ..	½"	5/16"	3" x 3" x ½"	2'-6"	12" x 12" x ½"	4'-0" x 1'-9"	19"	7'-0"
Bridge, Forward Bulkhead ... ..	½"	5/16"	6½" x 3" x 3/8"	3'-0"	18" x 18" x 3/8"	9" DIAM. PORTS.	✓	7'-0"
Forecastle Bulkhead ... ..								
Trunk, Aft ... ..								
Trunk, Forward ... ..								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	½"	5/16"	3" x 3" x ½"	2'-6"	12" x 12" x ½"	4'-0" x 1'-9"	19"	7'-0"
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 ... ..	Steel hinged doors permanently attached. Manipulated from both sides.
Bridge, Forward Bulkhead ... ..	no openings
Forecastle Bulkhead ... ..	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	Steel hinged doors permanently attached. Manipulated from both sides.
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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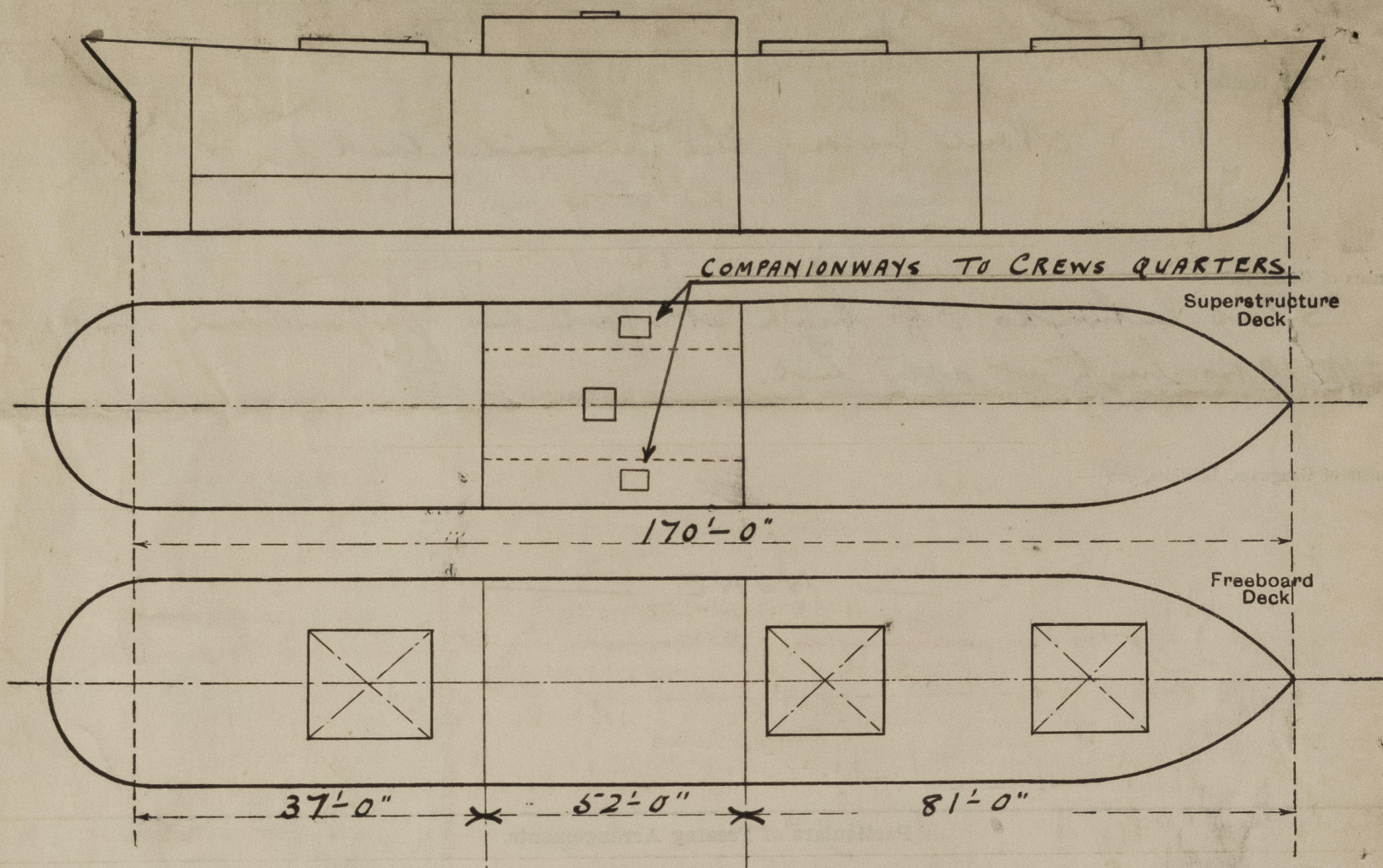


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



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

*The Vessel was examined throughout afloat and in dry-dock during the Special Survey N° 3. (Report herewith).*

Builder's name and yard number *Smith's Dock Co. Ltd. Middlesbrough. Yard N° 742.*

Names of sister ships *Patrol Gunboats of the "Kil" class.*

Owners *Smith's Coastline (Pty.) Ltd.*

Fee £ *13 : 12 : —* Received by me



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