

-5 SEP 1932

Index. No.
(For London Office only.)

Rpt. G.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

32506

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having *Raised quarter deck & forecastle.*

Port of Survey *Cape Town.*Date of Survey *15-8-32.*Name of Surveyor *J. Wood.*Particulars of Classification *+ 100 A1*

55. C.2. No 1-31.

Ship's Name

"Swazi"

(Type of Superstructures.)

Nationality and Port of Registry

British Cape Town

Official Number

149,934

Gross Tonnage

247

Date of Build

1924-11

Moulded Dimensions: Length

99.8

Breadth

22.4

Depth

10.6

tons

422

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

Coefficient of fineness for use with Tables

*.84**.84*

Depth for Freeboard (D)

Moulded depth

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Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) =

10.53

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

 $(10.53 - 6.62) \cdot 764 = + 2.99$

(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)

*22.4*Standard Round of Beam = $\frac{B \times 12}{50}$ *5.38*

Ship's Round of Beam

4.85

Difference

0.53

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right)$ *0.09*

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
overhang ...	<i>32.12</i>	<i>32.12</i>	<i>2.25</i>	<i>2.25</i>	<i>32.99</i>
R.Q.D. enclosed ...	<i>33</i>	<i>32.12</i>	<i>2.25</i>	<i>2.25</i>	<i>33</i>
overhang ...					
Bridge enclosed ...					
overhang aft ...					
overhang forward ...	<i>13.58</i>	<i>13.58</i>	<i>4.5</i>	<i>4.5</i>	<i>13.6</i>
Fore enclosed ...					
overhang ...					
Trunk aft ...					
forward ...					
Tonnage opening aft ...					
forward ...					
Total ...	<i>45.40</i>	<i>45.40</i>			<i>45.40</i>

Standard Height of Superstructure

6.0

R.Q.D.

36

Deduction for complete superstructure

*15.93*Percentage covered $\frac{S}{L} =$ *46.03*S₁ =*46.03*

E =

34.98

Percentage from Table, Line A.

(corrected for absence of forecastle (if required)) *19.23*

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = *15.93* × *19.23* = *-3.06*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>19.93</i>	1		<i>19.93</i>	<i>25.50</i>	<i>19.93</i>	1		<i>19.93</i>
$\frac{1}{4}L$ from A.P. ...	<i>8.87</i>	4		<i>35.48</i>	<i>11.04</i>	<i>8.87</i>	4		<i>35.48</i>
$\frac{2}{4}L$ " ...	<i>2.19</i>	2		<i>4.38</i>	<i>2.76</i>	<i>2.19</i>	2		<i>4.38</i>
Amidships ...	0	4		0	5.0	0	4		0
$\frac{3}{4}L$ from F.P. ...	<i>4.38</i>	2		<i>8.76</i>	<i>4.14</i>	<i>4.38</i>	2		<i>8.76</i>
$\frac{1}{4}L$ " ...	<i>14.74</i>	4		<i>58.96</i>	<i>16.59</i>	<i>14.74</i>	4		<i>58.96</i>
F.P. ...	<i>39.86</i>	1		<i>39.86</i>	<i>37.00</i>	<i>39.86</i>	1		<i>39.86</i>
Total ...	<i>131.4</i>			<i>188.7</i>		<i>188.7</i>			<i>188.7</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) =$ *191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43**191.43*

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

aft of

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =

10.33

Summer freeboard =

.87

Moulded draught (d) =

9.66

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *2.41* = *2.2*

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

 $\frac{749+68}{136} = \frac{1.427}{136}$

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

Summer Freeboard =

10.5

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

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

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Freeboard

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway		...	...	...	...	...	...	...	...	...
Dimensions of Hatchway		...	...	...	...	...	...	...	...	...
COAMINGS	{	Height above Deck	...	...	...	...	...	...	...	...
		Thickness	Sides	...	...	...	...	...	...	...
			Ends	...	...	...	...	...	...	...
		Stiffeners	...	...	...	...	...	...	...	...
		Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	{	Number	...	...	...	...	...	...	...	...
		Spacing	...	...	...	...	...	...	...	...
		Scantling and Sketch	...	...	...	...	...	...	...	...
		
		Bearing Surface	...	...	...	...	...	...	...	...
FORE AND AFTERS	{	Number	...	...	...	...	...	...	...	...
		Spacing	...	...	...	...	...	...	...	...
		Unsupported Lengths	...	...	...	...	...	...	...	...
			Scantling* and Sketch	...	...	...	...	...	...	...
		Bearing Surface	...	...	...	...	...	...	...	...
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? *Yes.*
 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 fiddle, funnel and ventilator coamings:— *Two gratings with covers permanently attached. Funnel good. Two ventilators to combined stokehold & engine room 16" dia height of framing 24" One ventilator 12" dia. height of framing 18".*

of Flush Bunker Scuttles:— *One flush cover iron scuttle on fore & starboard sides 18" dia strong backs secured with six pins fitted.*

of Companionways:— *Nil.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— *Two ventilators on foredeck one forward 9" dia. height of framing 36" one at after end of hatch 10" dia height of framing 5'-0" supported by band. Efficient Closing Appliances provided.*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— *All air & sounding pipes fitted with brass screw caps.*

Particulars of Gangway Cargo and Coaling Ports:— *Nil.*

Swage

Particulars of Scuppers and Sanitary Discharge Pipes —

Five scuppers aside.

One sanitary discharge pipe forward starboard in way of belting.

Particulars of Side Scuttles:

Three scuttles 9" dia aside fitted in forecabin.

Particulars of Guard Rails:—

Balustrade fitted round vessel except on forecabin height 2'-10".
height of rails on forecabin 2'-10".

Particulars of Gangways, Lifelines, etc.:—

Life lines complete both stemhead fore & starboard side forward.

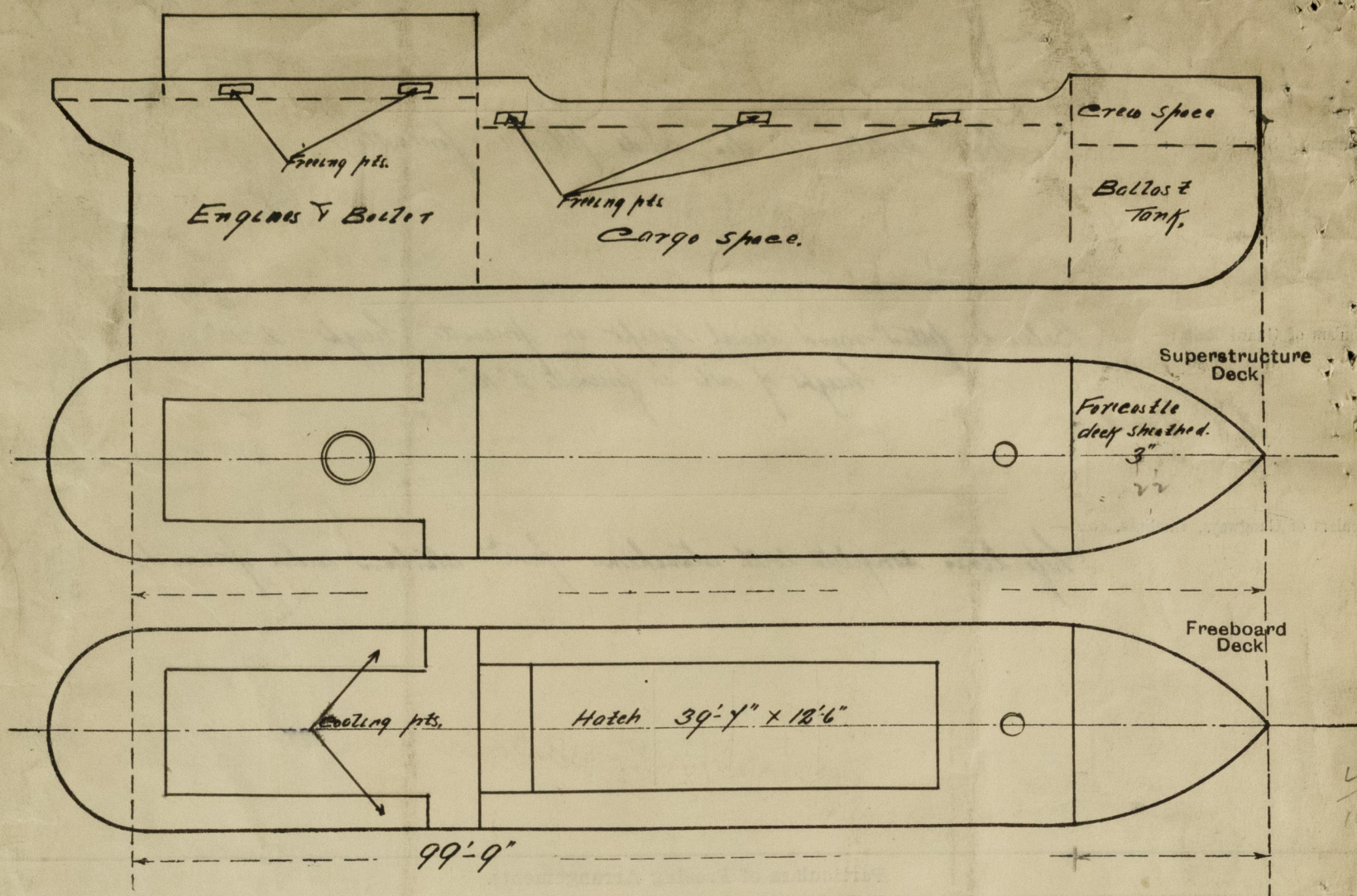
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Forward Well	32.12 40'-0"	2'-10"	24" x 14"	2.	8.64 186 sq. ft.	9.71 10.5 sq. ft.
After Well	52.25 50'-0"	2'-10"	36" x 16"	3.	12 48 sq. ft.	13.22 13 sq. ft.
State position of each freeing port } After Well:— as shown on sketch 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:— lower edge of freeing ports in line with bulwark. Additional area where sheer is less than standard. 2-1/4" bars fitted to each port.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Top Bulkhead								
Raised Quarter Deck Bulkhead ...		1/4"	3 1/2" x 3" x 3/8"	28"	Bracket	nil		2'-4"
Bridge, After Bulkhead		1/4"	3" x 3" x 3/8"	28"	Bracket	nil		6'-6"
Bridge, Forward Bulkhead		1/4"	3" x 3" x 3/8"	28"	Bracket	3-9" ports		6'-6"
Forecastle Bulkhead		1/4"	3 1/2" x 3" x 3/8"	28"	Bracket	1 door 4' x 8'	18"	4'-4"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Fore- board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super- structure Decks		1/4"	3" x 3" x 3/8"	28"	Bracket	2 doors 4'6" x 1'9"	14"	6'-6"
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	
Raised Quarter Deck Bulkhead ...	no opening
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	Three ports 9" dia.
Forecastle Bulkhead	
Exposed Machinery Casings on Fore- board or Raised Quarter Decks ...	
Exposed Machinery Casings on Super- structure Decks	Spunged wood door through Companion permanently attached operable both sides
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	
Flush Deck Ships	

Swage

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:—

Builder's name and yard number *W. J. Harwood & Sons Ltd Northwich No. 345.*

Names of sister ships

Owners *Thames S.S. Co. Ltd. Cape Town.*

Fee £ *8: 8: -* Received by me *[Signature]* *15-8-32.*



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