

# Lloyd's Register of Shipping

## SURVEYS FOR FREEBOARD.

Index No. 31352  
For London Office only.

No 31654

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~ **Motor**

having **Complete Superstructure with Tonnage Opening**

(Type of Superstructures.) **87 letter 1/346.**

Port of Survey **Sunderland.**

Date of Survey **During alterations. 1935.**

Name of Surveyor **Colin Bartlett.**

Particulars of Classification **+100A1 with freeboard.**

Ship's Name **"SILVERLARCH"**

Nationality and Port of Registry **British London.**

Official Number **147710.**

Gross Tonnage **5064.47**  
**5110**

Date of Build **1924/8.**

Moulded Dimensions: Length **401.25** Breadth **55.0** Depth **28.62**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **11,424** tons

Coefficient of fineness for use with Tables **745**

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	28.62	(a) Where D is greater than Table depth (D-Table depth) R = $(28.62 - 26.75) 3.00$ $+ 5.73$		Moulded Breadth (B)	55.00
Stringer plate	40.0			Standard Round of Beam = $\frac{B \times 12}{50}$	13.20
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	14.50
				Difference	Excess 1.30
				Restricted to	
Depth for Freeboard (D) =	28.66	If restricted by superstructures		Correction = $\frac{\text{Diff}^a}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{1.30}{4} \times 0.065 =$ Nil.

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	30.80	30.80	9' 4 1/2"	✓	30.80	Standard Height of Superstructure <b>7'-6"</b>
" overhang ...						" " R.Q.D. ✓
R.Q.D. enclosed ...						Deduction for complete superstructure <b>42.00"</b>
" overhang ...						Percentage covered $\frac{S}{L} = 100\%$
Bridge enclosed ...	365.20	365.20	9' 4 1/2"	✓	365.20	" " $\frac{S_1}{L} = 99.35\%$
" overhang aft ...						" " $\frac{E}{L} = 99.35\%$
" overhang forward ...						Percentage from Table, Line A. <b>99.20%</b>
Fore enclosed ...						(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	5.25	2.62	9' 4 1/2"	✓	2.62	Deduction = $42.00" \times .992 = -41.66$
" forward ...						
Total ...	401.25	398.62			398.62	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	50.12	1		50.12	45.00	67.50	1		67.50	Mean actual sheer aft = Excess
1/4 L from A.P. ...	22.31	4		89.24	19.38	30.03	4		120.12	Mean actual sheer forward = Excess
1/2 L " ...	5.51	2		11.02	5.00	7.425	2		14.85	Mean standard sheer aft = Excess
Amidships ...	✓	4		✓	-	✓	4		✓	Mean standard sheer forward = Excess
3/4 L from F.P. ...	11.02	2		22.04	14.00	16.83	2		33.66	Length of enclosed superstructure forward of amidships =
1/4 L " ...	44.62	4		178.48	57.00	68.08	4		272.32	" " aft of " =
F.P. ...	100.24	1		100.24	130.50	153.00	1		153.00	
Total ...				451.14	+22.50				661.45	

Correction =  $\frac{\text{Difference between sums of products}}{18} = \frac{210.31}{18} = 11.68$

If limited on account of midship superstructure. ✓

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

Actual T.D. 140 = 9' 4 1/2"

Standard = 7'-6"

Diff = 1'-10 1/2"

= 22.50"

Length of enclosed superstructure forward of amidships = } C.S.S.

" " aft of " = }

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Corrected for Flush Deck (if required)
Depth to Freeboard Deck = 28.66	Δ = 12,228.	Correction for coefficient $\frac{745 + 68}{1.36} = \frac{1425}{1.36} = 1047.79$
Summer freeboard = 3.04	Tons per inch immersion at summer load water line	Depth Correction ... 5.73
Moulded draught (d) = 25.62	T = 44.37.	Deduction for superstructures ... 41.66
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.40 - 6.2	Deduction = $\frac{\Delta}{40T}$ inches = 6.89 = 7"	Sheer correction ... 2.92
Addition for Winter North Atlantic Freeboard (if required) =		Round of Beam correction ...
		Correction for Thickness of Deck amidships ...
		Other corrections, scantlings, etc. ...
		Summer Freeboard = 36.47

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

Tropical Fresh Water Line above Centre of Disc ...	13 1/2"	Tropical Fresh Water Freeboard ...	3'-0 1/2"
Fresh Water Line " " ...	7"	Fresh Water " " ...	1'-11"
Tropical Line " " ...	6 1/2"	Tropical " " ...	2'-5 1/2"
Winter Line " " ...	6 1/2"	Winter " " ...	2'-6"
Winter North Atlantic Line " " ...	✓	Winter North Atlantic " " ...	3'-7"

19 JUL 1935

RECEIVED



Gilwell Brook

<p>Particulars of fiddle, funnel and ventilator coamings:— <del>Not erected.</del></p> <p><i>Saddle top &amp; machinery space Ventilators and coaming fitted to Seaway's satisfaction.</i></p>	<p><i>Superstructure Deck.</i></p> <p>Longage Opening. <math>5\frac{1}{2} \times 20'0"</math>. <math>9 \times 3 \times 4\frac{1}{2}</math> B.A. Coaming <math>2\frac{1}{2}"</math> Covers on 3" Rest Bars</p> <p>No: 6 Hatch <math>20'0" \times 6'0"</math> Coaming <math>30' \times 4\frac{1}{2}"</math>. W.P. Cranes 3 thick, 3" bearing surface, Cleats <math>2\frac{1}{2}"</math> apart. 2 Tarpaulins</p> <p>Under Forecastle Forward. Hatch <math>36' \times 36"</math> Coaming <math>9 \times 3 \times 4\frac{1}{2}"</math> 3" Covers, <math>2\frac{1}{2}"</math> Rest Bar, Cleats <math>2\frac{1}{2}"</math> apart. 2 Tarpaulins</p>
<p>Particulars of Flush Bunker Scuttles:—</p>	<p><i>2<sup>nd</sup> deck.</i> abreast deck between No: 1 &amp; 2 Hatches</p> <p>One Hatch <math>28' \times 27"</math> <math>9 \times 3 \times 4\frac{1}{2}</math> Coaming. <math>2\frac{1}{2}"</math> Covers 2" rest Bar. Cleats <math>2\frac{1}{2}"</math> apart. 2 Tarpaulins</p> <p>Between No: 1 &amp; 2 Hatchways. Two Hatches <math>28' \times 24"</math> Coaming <math>9 \times 3 \times 4\frac{1}{2}</math> B.A. <math>2\frac{1}{2}"</math> Covers. 2" rest Bar. Cleats <math>2\frac{1}{2}"</math> apart. 2 Tarpaulins</p> <p>abreast mail room port side</p> <p>One Hatch <math>28' \times 24"</math> Coaming <math>9 \times 3 \times 4\frac{1}{2}</math> B.A. <math>2\frac{1}{2}"</math> Covers 2" rest Bar. Cleats <math>2\frac{1}{2}"</math> apart. 2 Tarpaulins</p> <p>70 Stairs at after end</p> <p>Hatch <math>30' \times 30"</math> Coaming <math>9 \times 3 \times 4\frac{1}{2}</math> B.A. <math>2\frac{1}{2}"</math> Covers 2" rest Bar, Cleats <math>2\frac{1}{2}"</math> apart. 2 Tarpaulins</p>

[illegible]

None

Uma 3" Sculpters each side from shelter tween decks. ✓  
Wood plugs & adjustable rubber stoppers fitted to prevent accidental admission of water to the shelter tween deck space.

None.

On Shelter Deck. Open rails from forecastle to almost Saloon House  
Bulkheads 4' 8" in way of Saloon House. Then open rails to  
accommodation in way of engine casing where bulkheads for 65 ft  
Then open rails to aft end.  
Three rails with stanchions 5 ft apart  
Bulkheads 4' 6" high. Two washports each side 43"x18" in forward bulkhead  
Four " " 60"x18" in after bulkheads  
all washports fitted with vertical bars 9 in: apart.

None-

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 ... ..	18x32	32	Flange 4 in	38"	None	Jump 37x49"	18"	—
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	18x32	32	Flange 4 in	38"	None	Jump 37x49"	18"	—
Bridge, Forward Bulkhead ... ..	✓							
Forecastle Bulkhead ... ..	✓							
Trunk, Aft ... ..	✓							
Trunk, Forward ... ..	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	None							
Exposed Machinery Casings on Super-structure Decks ... ..	None							
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	18x32	28	3x2½x30	30"	Continuous	One each side 62"x27"	18"	✓
Deckhouses on Flush Deck Ships ...								

Poop Bulkhead ... ..	3" Shifting Boards in full height riveted channels
Raised Quarter Deck Bulkhead ...	-
Bridge, After Bulkhead ... ..	3" Shifting Boards in full height riveted channels
Bridge, Forward Bulkhead ... ..	-
Forecastle Bulkhead ... ..	-
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	-
Exposed Machinery Casings on Superstructure Decks ... ..	-
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	28 Steel doors. Manipulated from both sides.
Deckhouses on Flush Deck Ships ...	-



