

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD

24671  
17 JUL 1936

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Having Complete Superstructure with tonnage opening aft Port of Survey Rotterdam

(Type of Superstructures.)

Ship's Name "SYDLAND" Nationality and Port of Registry Swedish Gothenburg Official Number 7019 Gross Tonnage 5134 Date of Build 1920-8

Moulded Dimensions: Length 420.00 Breadth 53.75 Depth 29.00

Moulded displacement at moulded draught = 85 per cent. of moulded depth 12,350 tons

Coefficient of fineness for use with Tables 0.777

Date of Survey 10-12-14/1936

Name of Surveyor Alvan der Pijl

Particulars of Classification +100 A 1  
SHELTER DECK WITH FREEB.

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	29.00	(a) Where D is greater than Table depth 1.04 (D-Table depth) R = (29.04 - 28.00) 3.00		Moulded Breadth (B)	53.75
Stringer plate	0.04	= + 3.12		Standard Round of Beam = $\frac{B \times 12}{50}$	12.90
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	1.08 = 13.00
T $\left(\frac{L-S}{L}\right)$				Difference	Excess = .10
Depth for Freeboard (D) =	29.04	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right)$	$= \frac{.10}{4} \times .0051 = .0012$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	68.47	68.47	8.00		68.47
" overhang ...	0.33	.16			.16
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	346.80	346.80	8.00	SEE JACKET 346.80	346.80
" overhang aft ...			12.31		
" overhang forward ...					
Fore enclosed ...					
" overhang ...	0.38	.29	8.00		.29
Trunk aft ...					
" forward ...	.02				
Tonnage opening aft ...	4.73	2.14	$= \frac{1}{2}$ Diff		2.14
" forward ...					
Total ...	420.00	417.86			417.86

Standard Height of Superstructure 7.50

" " R.Q.D. ☒

Deduction for complete superstructure 42.00

Percentage covered  $\frac{S}{L} = 100\%$

" "  $\frac{S_1}{L} = 99.49\%$

" "  $\frac{E}{L} = 99.49\%$

Percentage from Table, Line A. 99.37%  
(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 = 42.00 x .9937 = -41.73

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	52.00	1		52.00	48.00	54.00	1		54.00
$\frac{1}{2}$ L from A.P. ...	23.14	4		92.56	21.33	24.53	4		96.12
$\frac{3}{8}$ L " ...	5.72	2		11.44	5.33	5.94	2		11.88
Amidships ...		4					4		
$\frac{3}{8}$ L from F.P. ...	11.44	2		22.88	12.83	13.86	2		27.72
$\frac{1}{2}$ L " ...	46.28	4		185.12	51.34	56.07	4		224.28
F.P. ...	104.00	1		104.00	120.00	126.00	1		126.00
Total ...				468.00	+6.00				540.00

Mean actual sheer aft =  
Mean standard sheer aft =

Mean actual sheer forward =  
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =  
L

" " aft of " =

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{72}{18} \left( \frac{.75 - .50}{.50} \right) = -1.00$

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.

Ft.  
Depth to Freeboard Deck = 29.04  
Summer freeboard = 3.65  
Moulded draught (d) = 25.39

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 6.35 = 19.1%

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

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 12810$   
Tons per inch immersion at summer load water line

T = 43.75

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

= 7.32

= 186%

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{.777 + .68}{1.36} = \frac{1.457}{1.36}$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard = 43.73

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

Tropical Fresh Water Line above Centre of Disc ...	13.6	347%	Tropical Fresh Water Freeboard ...	764
Fresh Water Line " " ...	7.3	186	Fresh Water " " ...	925
Tropical Line " " ...	6.34	161	Tropical " " ...	950
Winter Line below " " ...	3.4	161	Winter " " ...	1272
Winter North Atlantic Line " " ...			Winter North Atlantic " " ...	

11 AUG 1936

5m, 5.82.

MARKING FORM  
18 MAY 1936  
RECEIVED

MARKING FORM  
13 MAY 1937  
RECEIVED

MARKING FORM  
5 AUG 1936  
RECEIVED

Lloyd's Register  
Foundation



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	SHELTER DECK				FREEBOARD DECK				CROSS BULK
	1	4	5	6	1	4	5	6	
Dimensions of Hatchway	26' x 22'	30' 4" x 22'	24' x 22'	26' x 22'	30' 4" x 22'	24' x 22'	26' x 22'	6' 3" x 18'	
COAMINGS	Height above Deck	32"	32"	32"	18"				
	Thickness	46"	50"	46"	60"	60"	50"	40"	
	Sides	44"	44"	44"	44"	44"	44"	40"	
	Stiffeners	2 1/2" x 3 1/2"	4"	4"	4"	4"	4"	4"	
HATCH BEAMS	Brackets, Stays	WR. IRON ST. 2"							
	Number	5	6	4	5	6	4		
	Spacing	4'-4"	4'-4"	4'-10"	4'-4"	4'-4"	4'-10"		
	Scantling and Sketch			19" x 36"					
FORE AND AFTERS	Bearing Surface	2	BEAR IN ANGLEBAR SOCKETS	3" AND 3 1/2"					
	Number								
	Spacing								
	Unsupported Lengths								
HATCH COVERS	Material	3	3	3	PINE	3	3	3	
	Thickness	3	3	3	3	3	3	3	
	How fitted	3	3	3	LONGITUDINAL	3	3	3	
	Bearing Surface	3	3	3	3	3	3	3	
Spacing of Cleats	2	2	2	2	2	2	2	2	
Number of Tarpaulins	2	2	2	2	2	2	2	2	

\*Are wood fore and afters steel shod at all bearing surfaces? ☒  
 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:— Exposed on shelterdeck, of a substantial construction and in good condition. Funnel, fiddle-top, engine skylight and ventilator coamings in good condition. Fiddle-top, have hinged steel covers. Hatch coalscut 18' x 4'. Coaming 12' x 40'. Complete battening down arrangement.

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:— Access to crewspace in shelterbetween deck aft. Strong back door in strong steel house, sills 18 1/2". Doors operated from both sides. Access to crewspace through flush hatch in the strong steel house, passage through strong back door, operated from both sides, sills 16".

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

Fore Deck. Coamings 11" x 34" 35" high.  
 Shelterdeck. Coamings varying 8-24" diameter x 34-40", all 36" high.  
 Coamings all in good condition, wood plugs and canvas covers available. also for ventilator openings in afterbulkheads saloon and central house.

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

Fore Deck. 3" x 35" high.  
 Shelterdeck. all 3" x 30" to 34" high and 1 to 10" high.  
 All openings are provided with wood plugs.

Particulars of Gangway Cargo and Coaling Ports:—

Particulars of Scuppers and Sanitary Discharge Pipes:— Existing scupper covers to be removed and holes in freeboard deck permanently closed. Two scuppers fitted, 16 each side, in positions as shown on sketch, leading overboard and fitted with cast bronze stormvalves on the ship's sides. All sanitary discharges come from spaces situated above the freeboard and have stormvalves on the ship's sides.

Particulars of Side Scuttles:—

All situated above the freeboard deck, of a substantial construction and fitted with hinged deadlights.

Particulars of Guard Rails:—

Amidships and round counter plan bulwarks, the remainder is a 3 rod rail, height 42". Stanchions 5' apart. (Greenport provided amidships).

Particulars of Gangways, Lifelines, etc:—

Lifelines are available in order to ensure safety for the crew in handling the vessel during bad weather.

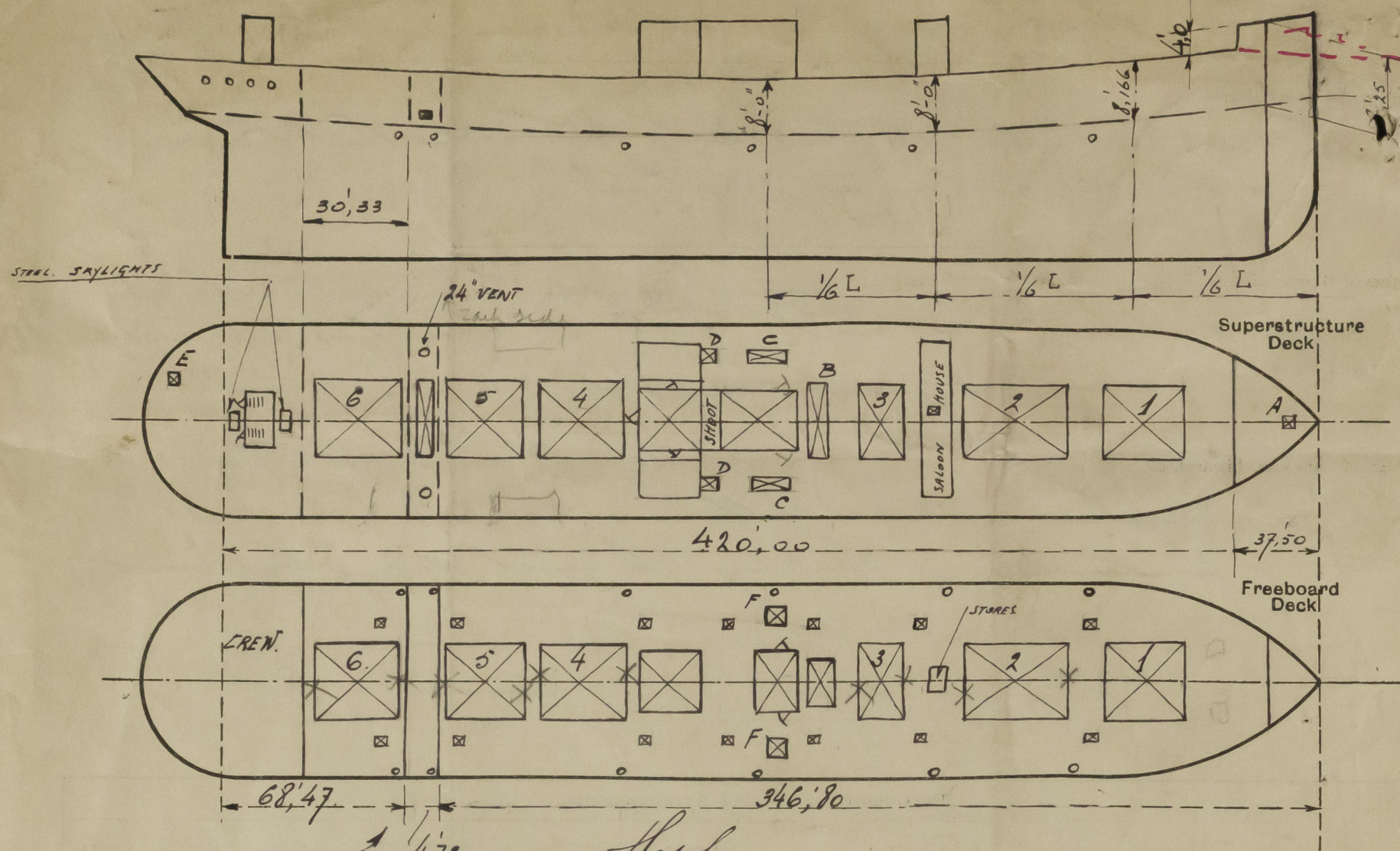
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well			In bonnetwell each side a freeing port 21" x 15", sills 18 1/2", fitted with hinged steel shutter.			
Forward Well						
State position of each freeing port ... After Well:— (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:— 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	vertical	32'	4 x 3 x 40	35'	✓ 10 6-8 x 4-1	NO SILLS		
Raised Quarter Deck Bulkhead					✓ 10 6-8 x 4-1			
Bridge, After Bulkhead		32'	4 x 3 x 40	35'	✓ 10 6-8 x 4-1	NO SILLS		
Bridge, Forward Bulkhead					✓ 10 6-8 x 4-1			
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	40'	30'	3 1/2 x 3 1/2 x 40	30"	3 1/2	4-10" x 2-1"	4-10" 2-1"	1/6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	15 x 44'	40'	4 x 3 x 32	4-6'	✓	4-9" x 1-10"	15"	
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	Both bonnetwell bulkheads have opening closed by 3" stormboards in wind channels over full height of opening.
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead	Hinged steel doors manipulated from both sides
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	



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 shewn on the following sketches:—



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

### Hatches

- A 4'-0" x 3'-4" Coaming 28" x 40" bearing 3"
- B 22'-0" x 4'-3" " 32" x 44" " 3"
- C 10'-9" x 3'-0" " 32" x 40" " 2"
- D 4'-4" x 3'-0" " 32" x 40" " 2"
- E 3'-0" x 3'-0" " 18 1/2" x 40" " 2"
- F 5'-1" x 4'-5" " B.A. 9" x 3 1/2" x 42" " 3"

2 3/4" fine covers  
2 tarpaulins each  
battens and  
wedges in order

### 14 Escape hatches in freeboard deck 18" x 28"

Coamings now made B.A. 9" x 3" x 40"  
6 Cheats, 1 tarpaulin, battens and  
wedges complete, 2 3/4" fine hatch covers on  
2 1/2" rectangles

Donnage hatch over donnage well: 4'-0 1/4" x 22'-0" Coaming B.A. 12" x 3 1/2" x 48"  
Efficient temporary covers provided

Steel skylights on shelterdeck aft over crew's quarters: of steel, strongly constructed,  
12" high, with leak flaps

Freeboard survey held on forenoon, during damage repairs

Builder's name and yard number

Doxford Sunderland

Names of sister ships

Owners

Angf. Axelbol Frising (Mgn. Bröström)

Fee

204,00

Received by me

Rotterdam 16<sup>th</sup> July 1936

J. van der Kolk



© 2020

Lloyd's Register  
Foundation