

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Computation of Freeboard for Steamer, Sailing Ship, Tanker
 having *Prop. Bridge & Forecastle*
Port of Survey *Falmouth**SIREHAV*

(Type of Superstructures.)

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*POLLUX**Swedish
Inleborg**7471**8741**1928*Moulded Dimensions: Length *466'* Breadth *61.5* Depth *36.25*

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

Coefficient of fineness for use with Tables

Date of Survey *31. 7. 32*Name of Surveyor *Archd. Murray*Particulars of Classification *100 A.1.**Carrying Petroleum in bulk*

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	... 36.25	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	61.5
Stringer plate06	(36.31 - 31.07) 3.0 = + 15.72		Standard Round of Beam = $\frac{B \times 12}{50}$	14.76
Heathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	15.5
$T \left(\frac{L-S}{L} \right) =$				Difference	Even 74
Depth for Freeboard (D) =	36.31	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{74}{4} \times .6132 = - 11$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	97.25	97.25	7.8		97.25
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	35.5	35.50	7.8		35.50
„ overhang aft ...					
„ overhang forward					
Forecastle enclosed ...	47.5	47.50	7.11		47.50
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward					
Total ...	180.25	180.25			180.25

Standard Height of Superstructure	7.5
„ „ R.Q.D.	
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	38.68 %
„ „ $\frac{S_1}{L} =$	38.68 %
„ „ $\frac{E}{L} =$	38.68 %
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, Line B. <i>Table</i>	29.68
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction =	42.00 x 29.68 = - 12.47

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	56.60	1	56.60	41	40.62	1	40.62
$\frac{1}{4}$ L from A.P. ...	25.19	4	100.76	7	8.00	4	32.00
$\frac{3}{4}$ L „ ...	6.23	2	12.46	0	0	2	0
Amidships ...		4		0	0	4	0
$\frac{3}{4}$ L from F.P. ...	12.45	2	24.90	0	0	2	0
$\frac{1}{4}$ L „ ...	50.37	4	201.48	21	18.00	4	72.00
F.P. ...	113.20	1	113.20	91	90.06	1	90.06
Total ...			509.40				234.68

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{274.72}{18} \left(\frac{75 - 193.4}{2 \times 466} \right) = + 8.50$

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 = 36.31
 Summer freeboard = 8.17
 Moulded draught (d) = 28.14

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 7.03 = 179 m

Addition for Winter North Atlantic Freeboard (if required) = 4.66 x 118

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 18425$

Tons per inch immersion at summer load water line

T = 59.75

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

= 7.71

= 196 m

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. ...

Summer Freeboard = 98.02

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

Tropical Fresh Water Line above Centre of Disc ...	14.74	= 375 m	Tropical Fresh Water Freeboard ...	83.28	= 2115 "
Fresh Water Line „ „ ...	7.71	= 196 "	„ Fresh Water „ „ ...	90.31	= 2294 "
Tropical Line „ „ ...	7.03	= 179 "	„ Tropical „ „ ...	90.99	= 2311 "
Winter Line below „ „ ...	7.03	= 179 "	„ Winter „ „ ...	105.05	= 2669 "
Winter North Atlantic Line „ „ ...	11.69	= 297 "	„ Winter North Atlantic „ „ ...	109.71	= 2787 "

12 AUG 1932

5m, 3.32

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	Forecastle deck	Forehold	Main tank.	Summers tank.	Cross tank.	Poof dk	Poof dk		
Dimensions of Hatchway	3'-7" x 2'-11"	11'-3" x 10'-6"	6'-0" x 4'-0"	6'-0" x 4'-0"	3'-0" x 3'-0"	4'-0" x 4'-0"	5'-10" x 2'-10"		
COAMINGS									
Height above Deck	16"	33"	12"	39"	39"	12"	9"		
Thickness Sides	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"		
Stiffeners	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"		
Brackets/Stays	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"		
HATCH BEAMS									
Number	2	2	2	2	2	2	2		
Spacing	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"		
Scantling and Sketch	2" x 10"	2" x 10"	2" x 10"	2" x 10"	2" x 10"	2" x 10"	2" x 10"		
Bearing Surface									
FORE AND AFTERS									
Number	2	2	2	2	2	2	2		
Spacing	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"		
Unsupport Lengths	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"		
Scantling and Sketch	2" x 10"	2" x 10"	2" x 10"	2" x 10"	2" x 10"	2" x 10"	2" x 10"		
Bearing Surface									
HATCH COVERS									
Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel		
Thickness	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"		
How fitted	Hinged	Hinged	Hinged	Hinged	Hinged	Hinged	Hinged		
Bearing Surface									
Spacing of Cleats	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"		
Number of Tarpaulins	2	2	2	2	2	2	2		

Particulars of fiddle, funnel and ventilator coamings:—

Shokhold gratings fitted with strong steel hinged covers.
Fidley funnel and ventilators in efficient condition.
Engine room skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

Access to Engine room through steel bulkhead on poof deck doors of hard wood manipulated from both sides 18" high.
Steel door to pump room forward, manipulated from both sides 18" high.

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

Forecastle 2 off 6 1/2' dia, 3'0" x 3'0" Coaming 2'0" x 3'0" } Poof deck 1 off 9' dia 3'0" x 3'0" Coaming 2'0" x 3'0" }
Forehold 1 off 12' dia, 4'7" x 3'0" } Forecastle }
Main tank 1 off 18' dia, 3'0" x 3'0" } }
Summers tank 1 off 18' dia, 4'0" x 3'0" } }
Cross tank 1 off 18' dia, 5'0" x 3'0" } }
Poof dk 1 off 18' dia, 5'0" x 3'0" } }
Foreboard dk 1 off 18' dia, 5'0" x 3'0" } }
Coaming provided with steel covers and canvas ditto.

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

Forecastle 2 off 4' dia, 9' high, 1/2" thick, 1/2" thick }
Forehold 1 off 12' dia, 12' high, 1/2" thick, 1/2" thick }
Main tank 1 off 18' dia, 6' high, 1/2" thick, 1/2" thick }
Summers tank 1 off 18' dia, 6' high, 1/2" thick, 1/2" thick }
Cross tank 1 off 18' dia, 6' high, 1/2" thick, 1/2" thick }
Poof dk 1 off 18' dia, 6' high, 1/2" thick, 1/2" thick }
Foreboard dk 1 off 18' dia, 6' high, 1/2" thick, 1/2" thick }
All of cast iron, and provided with canvas covers to openings, so as means of closing. Height measured to opening.

Particulars of Gangway Cargo and Coaling Ports:—

None.

Particulars of Scuppers and Sanitary Discharge Pipes:—

Scuppers: 3 in forewell and 6 in aft, P.T.S., fitted through ship's side in way of stringer angle.
Sanitary discharges: 4 in way of poof discharging about 3 feet below foreboard deck above foreboard deck.
All fitted with metal non return valves.

Particulars of Side Scuttles:—

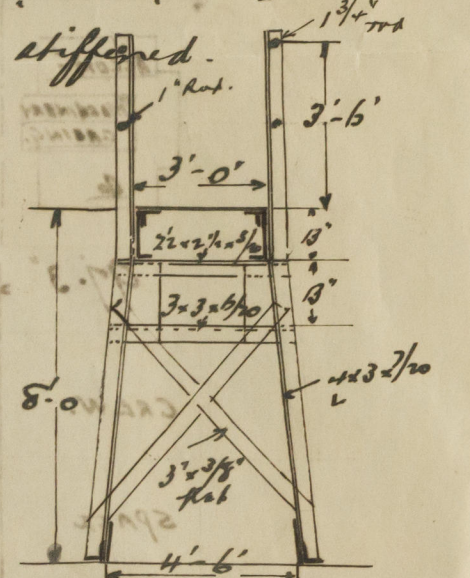
Side scuttles in poof, bridge & forecastle of strong construction, and fitted with cast iron hinged headlights.

Particulars of Guard Rails:—

Poof deck, Guard rail sections 3'-8" high, about 5 ft apart with 3 rails.
Forecastle: Steel balustrade 3'-6" efficiently stiffened.

Particulars of Gangways, Ladders, etc.:—

Gangway fitted from poof deck to bridge deck, with continuous girded each side.
Supporting 3/8" chequered plating platform.
Supports of steel angle bar spaced about 12'-9" apart.



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	176.5'	3'-7" to 4'-0"	2'-3" x 9"	24	47' according to drawing	
Forward Well	99.0'	4'-9"		22	33' according to drawing	

State position of each freeing port (F. and A. position and height above deck edge): After Well: 3' above deck edge; Forward Well: 3' above deck edge.
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: No.
Additional area where sheer is less than standard: None.

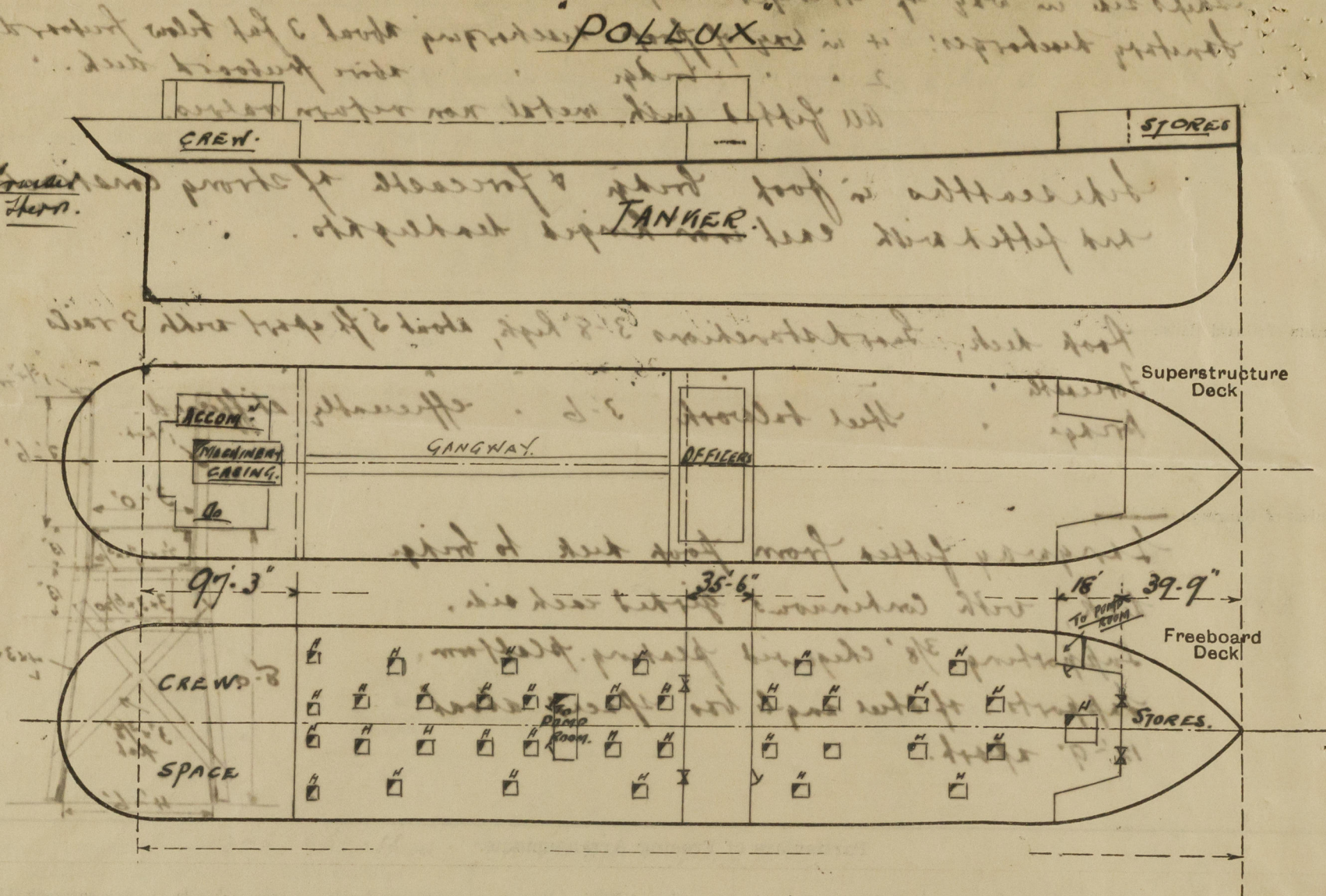
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Stills	Height of Casings
Poof Bulkhead	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	None	7'-8"	
Raised Quarter Deck Bulkhead	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	None	7'-8"	
Bridge, After Bulkhead	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	5'4" x 3'-1"	3'-11"	7'-8"
Bridge, Forward Bulkhead	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	5'-0" x 2'-11"	1'-6"	7'-8"
Forecastle Bulkhead	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	6'-2" x 3'-1"	3'-2"	7'-11"
Trunk, Aft	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	None	7'-10"	
Trunk, Forward	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	None	7'-10"	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	None	9'-0"	
Exposed Machinery Casings on Superstructure Decks	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	None	9'-0"	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	None	9'-0"	
Deckhouses on Flush Deck Ships	1/2"	1/2"	10' x 3 1/2" x 1/2"	36"	Lugs bottom, brackets top.	None	9'-0"	

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

Poof Bulkhead	None
Raised Quarter Deck Bulkhead	None
Bridge, After Bulkhead	3" storm boards in riveted channels full height.
Bridge, Forward Bulkhead	12" Hinged steel door, manipulated from both sides.
Forecastle Bulkhead	3" storm boards in riveted channels full height.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	2 Hinged steel doors to pump room manipulated from both sides.
Exposed Machinery Casings on Superstructure Decks	None
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	None
Deckhouses on Flush Deck Ships	None

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:—



Wood sheathing on Roofs & Bridge decks.

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

Vessel examined in dry dock for Report on Convention Freeboard, also for Condition Survey.

N.B. Steel caps & canvas covers are supplied to all ventilator coverings as a means of closing, also Canvas covers are supplied to openings of all air pipes for a similar purpose.

Tracing port area has been increased to the amount indicated in pencil on sheet captioned plan received from Gothenburg Surveyor.

Builder's name and yard number

Rockums M. V. Aktieb Malmo. Yard No 156.

Names of sister ships

M/V. 'Castor'. This Report refers to the M/V. "POLLUX"

Owners

Stelletorgs Angif Nya Aktieb (J Malmoos mgr)

Fee £

Received by me



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