

9 FEB 1935

Index. No. **34625**
(For London Office only.)Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer Motor Sailing Ship Ship , Tanker					Port of Survey Hamburg
having poop, bridge & forecastle					Date of Survey 4th February 1935
(Type of Superstructures.)					Name of Surveyor Friedrich Ohlgen
Ship's Name "GENOTA"	Nationality and Port of Registry Dutch. The Hague.	Official Number	Gross Tonnage	Date of Build 1935	Particulars of Classification +100A1 Carrying Petroleum in bulk. Longitudinal framing at bottom & deck.
Moulded Dimensions: Length 140.21m	Breadth 17.98m	Depth 10.363m			
Moulded displacement at moulded draught = 85 per cent. of moulded depth 17556 m³ tons					
Coefficient of fineness for use with Tables 791					
Depth for Freeboard (D)			Depth correction		Round of Beam correction
Moulded depth ...	10.363	(a) Where D is greater than Table depth (D - Table depth) R = 8.33 (10.385 - 9.347) × 30 = + 259m			Moulded Breadth (B) 17.98
Stringer plate ...	22	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =			Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{360}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures			Ship's Round of Beam = 356
Depth for Freeboard (D) =	10.385				Difference 4
					Restricted to 4
					Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{4}{4} \times 59.12 = \mathbf{+1}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	28.35	28.35	2.286	2.286	28.35	Standard Height of Superstructure 2290
" overhang ...						" " R.Q.D. ✓
R.Q.D. enclosed ...						Deduction for complete superstructure 1067
" overhang ...						Percentage covered $\frac{S}{L} = \mathbf{40.88}$
Bridge enclosed...	14.33	14.33	2.286	2.286	14.31	$\frac{S_1}{L} = \mathbf{40.88}$
" overhang aft ...						" " $\frac{E}{L} = \mathbf{40.86}$
" overhang forward						Percentage from Table, Line A. Tanker 31.86
Fore enclosed ...	14.63	14.63	2.286	2.286	14.63	(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 ...						Deduction = 1067 × 31.86 = -340
" " forward						
Total ...	57.31	57.31			57.29	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	1422	1	1422	56	1422	1422	1	1422	1422
$\frac{1}{4}$ L from A.P. ...	632	4	2528	25	635	635	4	2540	2540
$\frac{2}{4}$ L " ...	158	2	316	64	159	159	2	318	318
Amidships ...	✓	4	✓	0	✓	✓	4	✓	✓
$\frac{3}{4}$ L from F.P. ...	316	2	632	124	311	311	2	622	622
$\frac{1}{4}$ L " ...	1263	4	5052	59	1264	1264	4	5056	5056
F.P. ...	2844	1	2844	112	2845	2845	1	2845	2845
Total ...			12794					12803	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) = \frac{19}{18} \left(75 - \frac{2044}{5456} \right) = \mathbf{Nil.}$

If limited on account of midship superstructure. **✓**Mean actual sheer aft = **Standard**
Mean standard sheer aftMean actual sheer forward = **Standard**
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = **✓**" " aft of " = **✓**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **10385**
Summer freeboard = **2050**
Moulded draught (d) = **8335**Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48}$ inches = **174**Addition for Winter North Atlantic Freeboard (if required) = **174 + 115 = 289**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = \mathbf{16665}$

Tons per inch immersion at summer load water line

 $T = \mathbf{56.3}$ Deduction = $\frac{\Delta}{40T}$ inches= **7.4**= **19m**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{791 + 68}{1.36} = \frac{1.471}{1.36}$ Depth Correction ... **259**Deduction for superstructures ... **340**Sheer correction ... **1**Round of Beam correction ... **✓**Correction for Thickness of Deck amidships ... **✓**Other corrections, scantlings, etc. ... **✓**Summer Freeboard = **2054**

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

Tropical Fresh Water Line above Centre of Disc ...	1.36	Tropical Fresh Water Freeboard ...	169
Fresh Water Line " " ...	1.19	Fresh Water " " ...	186
Tropical Line " " ...	1.17	Tropical " " ...	188
Winter Line below " " ...	1.17	Winter " " ...	222
Winter North Atlantic Line " " ...	1.29	Winter North Atlantic " " ...	234

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Genota

Particulars of fiddle, funnel and ventilator coamings:— Fiddle top in height of boat deck = 2440 in above poop deck. Engine casing top 480 in above boat deck. Funnel and ventilator coamings efficiently riveted on to the top plating. All openings fitted with hinged steel covers with screw down bolts.

Original	M	Trans	Original	Objective	Trans	Objective	Trans
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31
32	32	32	32	32	32	32	32
33	33	33	33	33	33	33	33
34	34	34	34	34	34	34	34
35	35	35	35	35	35	35	35
36	36	36	36	36	36	36	36
37	37	37	37	37	37	37	37
38	38	38	38	38	38	38	38
39	39	39	39	39	39	39	39
40	40	40	40	40	40	40	40
41	41	41	41	41	41	41	41
42	42	42	42	42	42	42	42
43	43	43	43	43	43	43	43
44	44	44	44	44	44	44	44
45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47
48	48	48	48	48	48	48	48
49	49	49	49	49	49	49	49
50	50	50	50	50	50	50	50
51	51	51	51	51	51	51	51
52	52	52	52	52	52	52	52
53	53	53	53	53	53	53	53
54	54	54	54	54	54	54	54
55	55	55	55	55	55	55	55
56	56	56	56	56	56	56	56
57	57	57	57	57	57	57	57
58	58	58	58	58			

all companion ways situated inside superstructure.
Entrances to pumprooms in form of after well strongly built
of steel plates & angles, fitted each with one w. & t. door. Openings
on top of pumproom entrances fitted w/ hinged steel covers
with hant packing and screw down bolts. (See partic. of Superstructures.)

Particulars of Ventilators in exposed positions on freeboard and superstructure decks: — No ventilators in exposed position on freeboard decks. All ventilator coamings on fore-castle, bridge and poop deck are 29" high. 36" above deck. Thicknesses of coamings 8-10 in. All ventilator coamings fitted with screwed steel caps.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— All air pipes on freeboard and superstructure decks are of substantial construction and fitted with gauge and hinged steel covers. ✓

Forward well: 2 @ 7'-0" in height. After well 4 extending to 3'-0" above boat deck.
On picnic table: 1 @ 25", 4 @ 30" 41", 2 @ 38", + 4 @ 41" in height.
On post deck: 3 @ 36" in height.

None.

In way of fore. will 3 scupper each side above fore. deck 200x100 in.
In way of after will 4 scupper each side above fore. deck 200x100 in.
All sanitary discharge pipes fitted with storm valves.
Scupper from port space in way of after way a W.C. & bath room: fitted with
lens at outer end, and ^{non-derogable} fittings at inner end.

No side scuttles below freeboard deck

Guard Rails:—

*Bulwark in way of
form. & after work.*

Open rail in form. & after work.

*Open rail on falsework,
bridge & poop deck.*

Technical drawing showing three cross-sections of guard rails with dimensions:

- Bulwark in way of form. & after work:** Dimensions include 63x112, 75, 105, 180, 92, and 360.
- Open rail in form. & after work:** Dimensions include 350, 1050, and 360.
- Open rail on falsework, bridge & poop deck:** Dimensions include 350, 1050, and 360.

Technical drawing of two types of gangways, labeled 'Type A' and 'Type B'.

Type A:

- Top width: 990
- Height: 500
- Total height: 1080
- Base width: 1960
- Diagonal members: 75x75x10
- Material: 75x75x9

Type B:

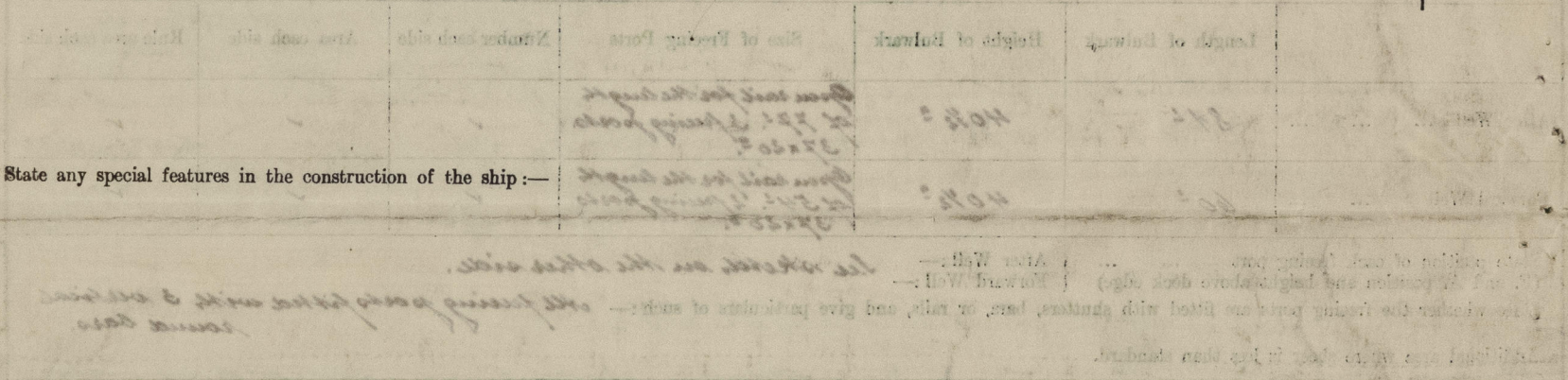
- Top width: 1450
- Height: 500
- Total height: 1080
- Base width: 1340-1380
- Diagonal members: 75x75x10
- Material: 75x75x9

State position of each freeing port ... { After Well:— *See sketch on the other side.*
(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:— *All freeing ports fitted with 3 vertical round bars.*

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

Poop Bulkhead	2 hinged steel w. t. doors, fitted with turnbuckles & hand packing, to be opened from both sides.
Raised Quarter Deck Bulkhead ...	One hinged steel w. t. door, fitted with turnbuckles & hand packing, to be opened from both sides.
Bridge, After Bulkhead	Two bowage openings, closed by steel plates with hook bolts.
Bridge, Forward Bulkhead	One hinged steel w. t. door, fitted with turnbuckles & hand packing, to be opened from both sides.
Forecastle Bulkhead	2 hinged oak wood doors, fitted with lock & key only.
Forecastle Machinery Casings on Freeboard or Raised Quarter Decks ...	2 hinged w. t. steel doors, fitted with turnbuckles & hand packing, to be opened from both sides.
Exposed Machinery Casings on Superstructure Decks	One hinged steel w. t. door on each side, fitted with turnbuckles & hand packing, to be opened from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	No doors.
PUMPROOM ENTRANCES.	
Entrances on Viable Deck String ...	Each entrance one hinged steel w. t. door fitted with turnbuckles & hand packing, to be opened from both sides.

A hand-drawn plan of the lower deck of the USS Albatross (SS-218). The diagram shows a longitudinal section of the ship's hull. At the bow (left), there is a 'CREW SPACE' and an 'ENGINE & BOILER SPACE'. Below the engine space is a 'TANK' labeled 'No. 1'. To the right of the engine space is a 'COFFER DAM' and an 'OIL FUEL' tank. This is followed by a series of 'TANK' compartments labeled 'No. 2', 'No. 3', 'No. 4', and 'No. 5'. Between these tanks are 'PUMP ROOM' and 'COFFER DAM' sections. To the right of 'TANK No. 5' is another 'COFFER DAM' and a 'TANK' labeled 'No. 6'. This is followed by 'TANK No. 7', another 'COFFER DAM', and a 'TANK' labeled 'No. 8'. At the stern (right), there is a 'CREW SPACE' and a 'TRUNK'. Below the stern crew space is a 'DRY CARGO' area and a 'F.P. TANK'. A 'DEEP TANK' is also indicated near the stern. The diagram includes various structural details like bulkheads, hatches, and piping.



Particulars of Superstructures, Trunks, Castles, Deckhouses.	Coaming	Plating	Bottoms	Spacing	Kind Attachment of Ballast	Size of Opening	Height of Sills	Height of Gangways
Top Bulwark	4. 18x40 x 145.2.	15. 2.	1. 18x40 x 145.2.	432	Brass	1812 x 200.2.	400.2.	7.0.
Side Bulwark - Iron Riveted	4. 18x40 x 145.2.	9. 2.	4. 18x40 x 145.2.	600 - 762.2.	None.	1812 x 1500 x 1812 x 1500	870.2. 480.2.	7.0.
Bridge / Top Bulwark	4. 18x40 x 145.2.	12. 2.	4. 18x40 x 145.2.	712 - 740.2.	Brass or Iron Riveted	1812 x 750.2.	480.2.	7.0.
Bridge / Forward Bulwark	4. 18x40 x 145.2.	7. 2.	4. 18x40 x 145.2.	710.2.	None.	1812 x 750.2. x 1812 x 750.2.	810.2.	7.0.
Forward Bulwark	4. 18x40 x 145.2.	10. 2.	4. 18x40 x 145.2.	750 - 840.2.	Brass or Iron Riveted	1812 x 750.2.	480.2.	7.0.
Forward Bulwark	4. 18x40 x 145.2.	10. 2.	4. 18x40 x 145.2.	750 - 840.2.	Brass or Iron Riveted	1812 x 750.2.	480.2.	7.0.
Forward Bulwark	4. 18x40 x 145.2.	9. 2.	4. 18x40 x 145.2.	750 - 840.2.	None.	1812 x 750.2. x 1812 x 750.2.	480.2.	7.0.

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