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Lloyd's Register of Shipping.

Index. No. _____ (For London Office only.)

SURVEYS FOR FREEBOARD.

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

having Poop & Forecastle

(Type of Superstructures.)

Port of Survey Rouen

Date of Survey 9th January 1932 & subsequent dates

Name of Surveyor Chas. Linklater.

Particulars of Classification + 100 A1 Carrying Petroleum in bulk.

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
M.S. KATENDRECHT	Dutch. Rotterdam	-	5099	1925

Moulded Dimensions: Length 402·08 Breadth 53·0 Depth 28·0

Moulded displacement at moulded draught = 85 per cent. of moulded depth 11330 CUBIC METRES ~~tons~~ (SEE LETTER 13-1-32) = 11432 tons

Coefficient of fineness for use with Tables ·789.

Depth for Freeboard (D)

Moulded depth	28·00
Stringer plate	·04
Sheathing on exposed deck $T\left(\frac{L-S}{L}\right)$ =	-
Depth for Freeboard (D) =	28·04

Depth correction

(a) Where D is greater than Table depth (D—Table depth) R =

$(28·04 - 26·80) \times 3·0 = +3·72$

(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) 53·0

Standard Round of Beam = $\frac{B \times 12}{50}$ = 12·72

Ship's Round of Beam = 13·25

Difference ·53

Restricted to

Correction = $\frac{\text{Diff}^{e}}{4} \times \left(1 - \frac{S_1}{L}\right)$ = ·13 × ·6614 = −·09"

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S_1)	Height	Height Correction	Effective Length (E)
Poop enclosed	99·25	99·25	7'-6"	-	99·25
„ overhang					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed... ...					
„ overhang aft ...					
„ overhang forward					
F'cle ~~enclosed~~ equiv...	36·87	36·87	7'-6"	-	36·87
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft ...					
„ „ forward					
Total	136·12	136·12			136·12

Standard Height of Superstructure 7·5'

„ „ R.Q.D. -

Deduction for complete superstructure 42"

Percentage covered $\frac{S}{L}$ = 33·86%

„ „ $\frac{S_1}{L}$ = 33·86%

„ „ $\frac{E}{L}$ = 33·86%

Percentage from Table, Line A. 24·86
(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 × ·2486 = − 10·44"

SHEER CORRECTION.

Sheer extended from 1906 Rules

Note: Sheer flat for 23'-10" aft ||

" " 17'-5" fwd ||

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	50·21	1	50·21	2'-7 3/16"	31·75	1	31·75
1/6 L from A.P. ...	22·34	4	89·36	0'-8 3/16"	8·75	4	35·00
2/6 L „ ...	5·52	2	11·04	0'-1 9/16"	1·56	2	3·12
Amidships ...	-	4	-	0'-0"	-	4	-
2/6 L from F.P. ...	11·05	2	22·10	0'-3 1/8"	3·12	2	6·24
1/6 L „ ...	44·68	4	178·72	1'-6 7/16"	18·44	4	73·76
F.P.	100·42	1	100·42	5'-4"	64·00	1	64·00
Total ...			451·82				213·87

Mean actual sheer aft / Mean standard sheer aft = Deficient

Mean actual sheer forward / Mean standard sheer forward = Deficient

$\frac{\text{Length of enclosed superstructure}}{L}$ forward of amidships = } Tanker does not apply.

„ „ aft of „ = }

Correction = $\frac{\text{Difference between sums of products}}{18}\left(\cdot75 - \frac{S}{2L}\right) = \frac{237·98}{18}(\cdot75 - \cdot1693) = +7·68$

If limited on account of midship superstructure. -

If limited to maximum allowance of 1½ ins. per 100 ft. -

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 28·04 Ft.

Summer freeboard = 5·74

Moulded draught (d) = 22·30

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 5·57

Addition for Winter North Atlantic Freeboard (if required = 4·02

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ = 10705 tons pro rata from Shedrecht

Tons per inch immersion at summer load water line

T = 43

Deduction = $\frac{\Delta}{40\,T}$ inches = 6·22

TABULAR FREEBOARD corrected for Flush Deck (if required) 63·00

Correction for coefficient $\frac{·789 + ·68}{1·36} = \frac{1·469}{1·36}$ 68·05

	+	−
Depth Correction	3·69	-
Deduction for superstructures	-	10·44
Sheer correction	7·68	-
Round of Beam correction	-	·09
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc.	-	-
	11·37	10·53

+ 0·84

Summer Freeboard = 68·89

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck :— 68·89" = 175 c.m.

Tropical Fresh Water Line above Centre of Disc ...	11·79" = 30 cm	Tropical Fresh Water Freeboard ...	57·10" = 145 "
Fresh Water Line „ „ ...	6·22" = 16 "	Fresh Water „ ...	62·67" = 159 "
Tropical Line „ „ ...	5·57" = 14 "	Tropical „ ...	63·32" = 161 "
Winter Line below „ ...	5·57" = 14 "	Winter „ ...	74·46" = 189 "
Winter North Atlantic Line „ „ ...	9·59" = 24 "	Winter North Atlantic „ ...	78·48" = 199 "

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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											

Please late: Particulars from lifting and/or available as Hatches closed by Pont Regulations. Vessel discharging Coal Cargo until at sea. Outline sketch. Genuine.

*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 fiddley, funnel and ventilator coamings:— 2 steel fiddley covers permanently attached.

Particulars of Flush Bunker Scuttles:—

None fitted.

Particulars of Companionways :—

Enclosed in steel deckhouse.

Pumps Room door particulars?

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

Ventilators :— Engine Room. 4 E.R. Ventilators. Coal
do 4 Patent do. on Poop.
Cross Passage. 2 small coal do
Galley Passage. 1 Patent do
Prov. Store Room. 2 small coal do
Boson's Stores. 2 do do do
Engine Room. 1 do do do

2 Pump Room Ventilators
1 at back of forecastle on upper deck coaming, 9"0/a, dia 430/a, x 10/a, riveted 4 dia to dk.
Closed by wood plugs & canvas covers, ventilating forward Pump Room.

2 Patent Ventilators Ventilating Stokers Space on Forecastle.

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

2 air pipes situated on poop, from F.W. & B. Tanks.
70/a → 600/a

6 patent air pipes → All 6 situated on poop; from oil bunkers, oil stores bunkers, double bottom bunkers, and engine oil D.B. Tanks.
600/a

2 air pipes situated on Poop from Aft Peak Tanks, and F.W. Tanks.
50/a → 600/a

Particulars of Gangway Cargo and Coaling Ports :—

Particulars? Rationalise air pipes & means of closing

None fitted.

Particulars of Scuppers and Sanitary Discharge Pipes — 6, 2" scuppers on main side in bridge & poop
7, 2" do do stands do do do
1, 150/a dia do at fore end of poop, main & stands., cast steal.
} No non-return valves fitted.

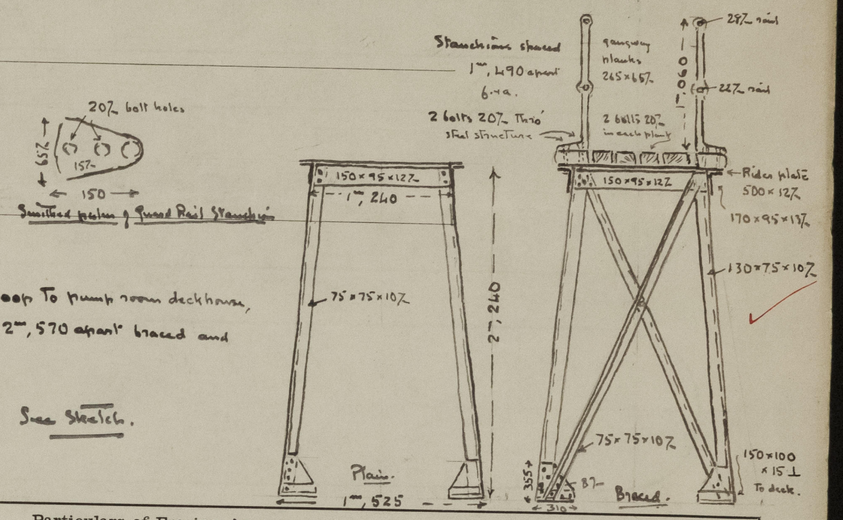
N.K. Rules for fitting Scuppers

3 Sanitary pipes; 1 on main side at bridge, 2 on main side of poop, all fitted with single non-return valves, not controlled from deck.

Particulars of Side Scuttles :

None fitted below freeboard deck.
All fitted with deadlights.

Sketch of Steel Gangway Supports.



Particulars of Guard Rails :—

Steel upward rail stanchions with 2 rails, bolted at bottom through steel shimsen gangway. See Sketch

Particulars of Gangways, Lifelines, etc. :—

Gangway extends in centre from poop to pump room deckhouse, thence to bridge. Steel supports spaced 2m, 570 apart braced and plain alternately.
No fore & aft bracing.
No gangway forward of bridge See Sketch.

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 { Open Rail	99'-8"	1m, 050	3'-0" x 2'-0"	6		
{ Closed Bulwark aft.	9'-10"					
Forward Well { Basis fore end Bridge	73'-3"	1m, 050				
{ Bridge ...	24'-2"					
{ from Bridge to open rail	51'-9"					

State position of each freeing port ... ... (F. and A. position and height above deck edge)
After Well :— 2 each side in bulwarks from open rail To Bridge. 250/a above deck.
Forward Well :— do do fore end of Bridge To Forecastle. 250/a above deck.
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— No shutters. 2 bars fitted.

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	610/a	12/a	L 220 x 100 x 17/a	860/a	brackets top & bottom 580 x 630 x 11/a	2 W.T. steel hinged doors 1m, 370 x 690/a	610/a	2m, 260
~~Raised Quarter Deck Bulkhead~~ ...	-							
Bridge, After Bulkhead	None.	(Open structure under overhead Bridge erection.)						
Bridge, Forward Bulkhead	None	(do do do		do	do	do)		
Forecastle Bulkhead	none.	8/a	103 x 70 x 8/a	815/a	none	1 W.T. steel hinged door 1m, 445 x 680/a	460/a	2m, 330
Trunk, Aft	-							
~~Trunk, Forward~~	-							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	Pump Room house, Paint & hemp lockers only.							
Exposed Machinery Casings on Superstructure Decks	Covered by Poop.							
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	-							
~~Deckhouses on Flush Deck Ships~~ ...	-							

Particulars ✗

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

Poop Bulkhead	2 W.T. steel hinged doors. Closed by 6 hand lever hooks. None altered at Rowan To open & close from both sides.
~~Raised Quarter Deck Bulkhead~~ ...	-
~~Bridge, After Bulkhead~~	-
~~Bridge, Forward Bulkhead~~	-
Forecastle Bulkhead	1 W.T. steel hinged door. Closed by 4 hand lever hooks. Manipulated only from outside. No crew accommodation. Store spaces only
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 ...	-

Particulars?

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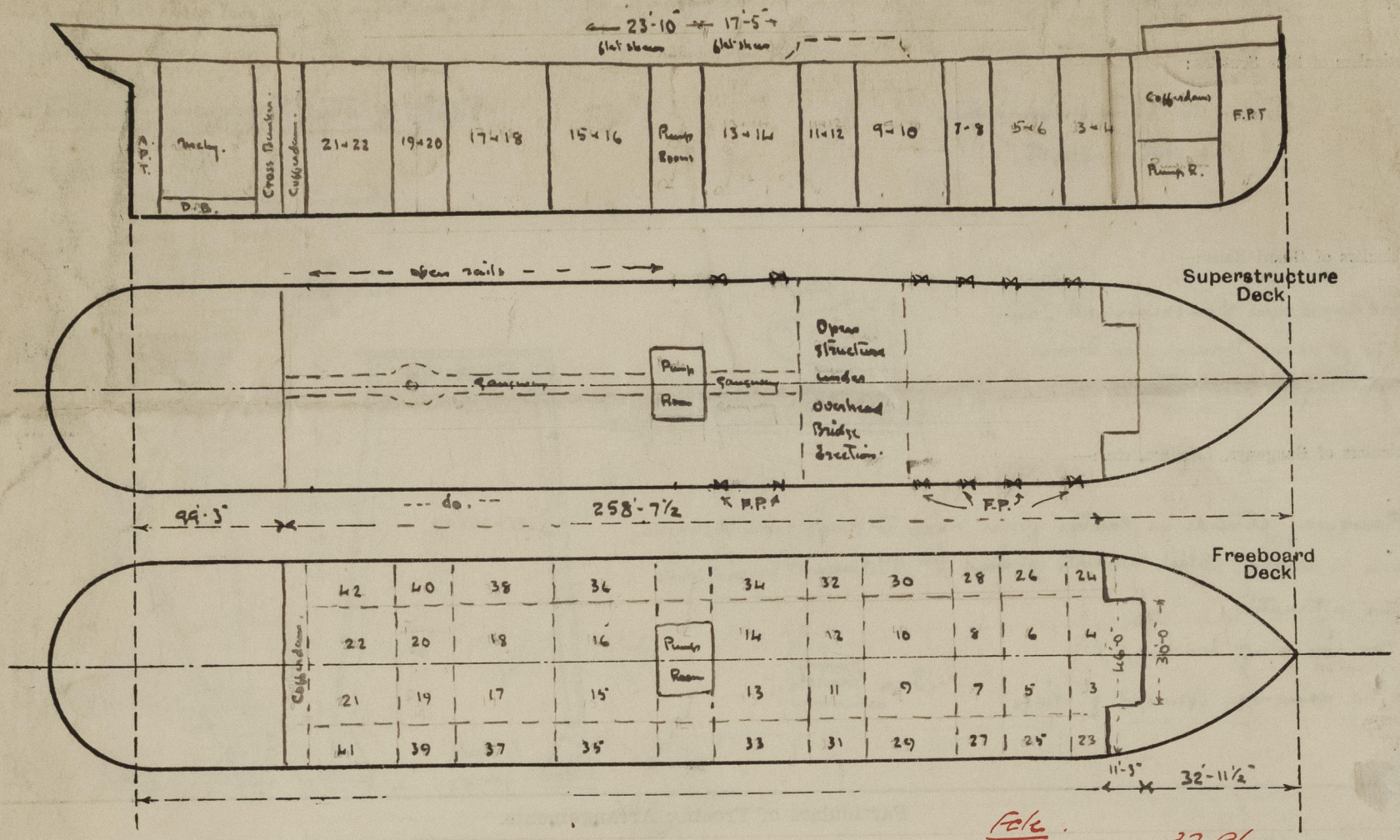
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches :—



Note :- The numbers are those of oil Tanks

Fore.
S.H. $\frac{16 \times 11.25'}{46}$ = 32.96 − 3.91
Gain. Hd = 36.87

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

Carrying Petroleum in bulk.

2 Dks aft. Longitudinal framing at bottom and at decks.

Please note! Vessel recently lengthened; flat sheer amidships.

Builder's name and yard number Maats. Fyenoord Rotterdam

Names of sister ships

Owners N.V. Maats. Motorschip "Katendrecht" (N.V. Phs. van Ommeren's Scheep. Bedrijf).

Fee £ : : Received by me

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