

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.12 JUN 1935
Index. No. 30532 A
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having POOP, BRIDGE & FORECASTLE
DUNSTAFNAGE WINTERSWIJK (Type of Superstructures) Dutch Rotterdam
Ship's Name Nationality and Port of Registry Rotterdam Official Number 146308 Gross Tonnage 4525 Date of Build 1922-9
Moulded Dimensions: Length 384 Breadth 51.75 Depth 29.3
Moulded displacement at moulded draught = 85 per cent. of moulded depth 11060 tons
Coefficient of fineness for use with Tables 783
Port of Survey Falmouth
Date of Survey 6/6/35
Name of Surveyor Belhoffitt
Particulars of Classification TIDAL

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth 29.25	(a) Where D is greater than Table depth (D-Table depth) R = (29.29-25.60)2.954 = + 10.90"	Moulded Breadth (B) 51.75
Stringer plate 0.4	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 12.42"$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓	If restricted by superstructures ✓	Ship's Round of Beam = 13"
Depth for Freeboard (D) = 29.29		Difference Excess .58"
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.58}{4} \times .5646 = -.07"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	34'-1"	34.08	8'-0"	✓	34.08
" overhang	✓		✓		
R.Q.D. enclosed	✓		✓		
" overhang	✓		✓		
Bridge enclosed	110'-6"	110.50	8'-0"	✓	110.50
" overhang aft	2'-2"	1.63	✓		1.63
" overhang forward	✓		✓		
F'cle enclosed	44'-0"	44.00	8'-0"	✓	44.00
" overhang	✓		✓		
Trunk aft	✓		✓		
" forward	✓		✓		
Tonnage opening aft	✓		✓		
" " forward	✓		✓		
Total	190.75	190.21			190.21

Standard Height of Superstructure	7.34
" " R.Q.D.	✓
Deduction for complete superstructure	40.93
Percentage covered $\frac{S}{L} =$	49.68%
" " $\frac{S_1}{L} =$	49.54%
" " $\frac{E}{L} =$	49.54%
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	35.61%
Interpolation for bridge less than 2L (if required)	
Deduction = 40.93 × .3561 =	- 14.57"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	48.40	1		48.40	60.00	60.00	1		60.00
$\frac{1}{8}L$ from A.P.	21.54	4		86.16	21.80	21.80	4		87.20
$\frac{2}{8}L$ "	5.32	2		10.64	.75	.75	2		1.50
Amidships	✓	4		✓	✓	✓	4		✓
$\frac{3}{8}L$ from F.P.	10.65	2		21.30	1.50	1.50	2		3.00
$\frac{4}{8}L$ "	43.08	4		172.32	46.80	46.80	4		187.20
F.P.	96.80	1		96.80	116.00	116.00	1		116.00
Total				435.62					454.90

Mean actual sheer aft = Deficit
Mean standard sheer aftMean actual sheer forward = Excess
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = $> .1L$ " " aft of " = $> .1L$ Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{19.28}{18} (.75 - .2484) = -.54"$

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 = 29.29
Summer freeboard = 5.60
Moulded draught (d) = 23.69

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 5.92" = 6"

Addition for Winter North Atlantic Freeboard (if required)=

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 10656$

Tons per inch immersion at summer load water line

T = 39.30

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

= 6.34"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{.783 + .68}{1.36} = \frac{1.463}{1.36}$

Depth Correction 10.90

Deduction for superstructures 14.57

Sheer correction54

Round of Beam correction07

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

66.60

71.64

+ -

10.90 -

- 14.57

- .54

- .07

- -

- -

10.90 15.18 - 4.28

Summer Freeboard = 67.36

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

Existing freeboards as reassessed being more favorable than those computed under the Convention.

Tropical Fresh Water Line above Centre of Disc	12 1/4"
Fresh Water Line " "	6 3/4"
Tropical Line " "	5 1/2"
Winter Line below " "	5"
Winter North Atlantic Line " "	✓

Tropical Fresh Water Freeboard	5'-7 1/4"
Fresh Water " "	4'-7"
Tropical " "	5'-0 1/2"
Winter " "	5'-1 3/4"
Winter North Atlantic " "	6'-0 1/4"

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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	...	...	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...	...	...	...
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>yes</i></p> <p>Are battens and wedges efficient and in good condition? <i>yes</i></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <i>yes</i></p> <p>Are lashings provided in accordance with rule requirements? <i>yes</i></p>											

Particulars of fiddle, funnel and ventilator coamings:— *Engine room skylight of steel.*
Funnel & Ventilator Coamings efficient.
Hinged steel plates provided over fiddle gratings.

Particulars of Flush Bunker Scuttles:— *none*

Particulars of Companionways:— *none*

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

<p><i>F. Well.</i></p> <p>1 at 7" dia 9 1/2" high</p> <p>4 at 8" " 9" "</p> <p>2 at 6" " 6" "</p> <p>4 goose necks. 4" dia 8" high</p>	<p><i>F. Well.</i></p> <p>8 at 17" dia 34 to 36" high</p> <p><i>A. Well.</i></p> <p>2 at 10" dia 36" "</p> <p>4 at 17" " 34 to 36" "</p>	<p><i>Poop.</i></p> <p>1 at 7" dia 10" high</p> <p>1 at 9" " 12" "</p> <p>4 goose necks</p> <p>4" dia 8" high</p>	<p><i>Wood & canvas covers provided</i></p>
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Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

<p><i>F. Well.</i></p> <p>4 at 3" dia 33" high</p> <p><i>A. Well.</i></p> <p>7 at 3" " 33" "</p>	<p><i>Bridge Dk.</i></p> <p>2 at 2 1/2" dia 16" high</p> <p><i>Poop.</i></p> <p>1 at 2 1/2" dia 12" "</p>	<p><i>efficient</i></p> <p><i>no covers provided</i></p>
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Particulars of Gangway Cargo and Coaling Ports:— *none*



Disstaffage

Particulars of Side Scuttles:—

Particulars of Guard Rails :—

Fcle & Poop decks.
2 Rails & Stanchions 38" high 4'-6" Spacing ✓

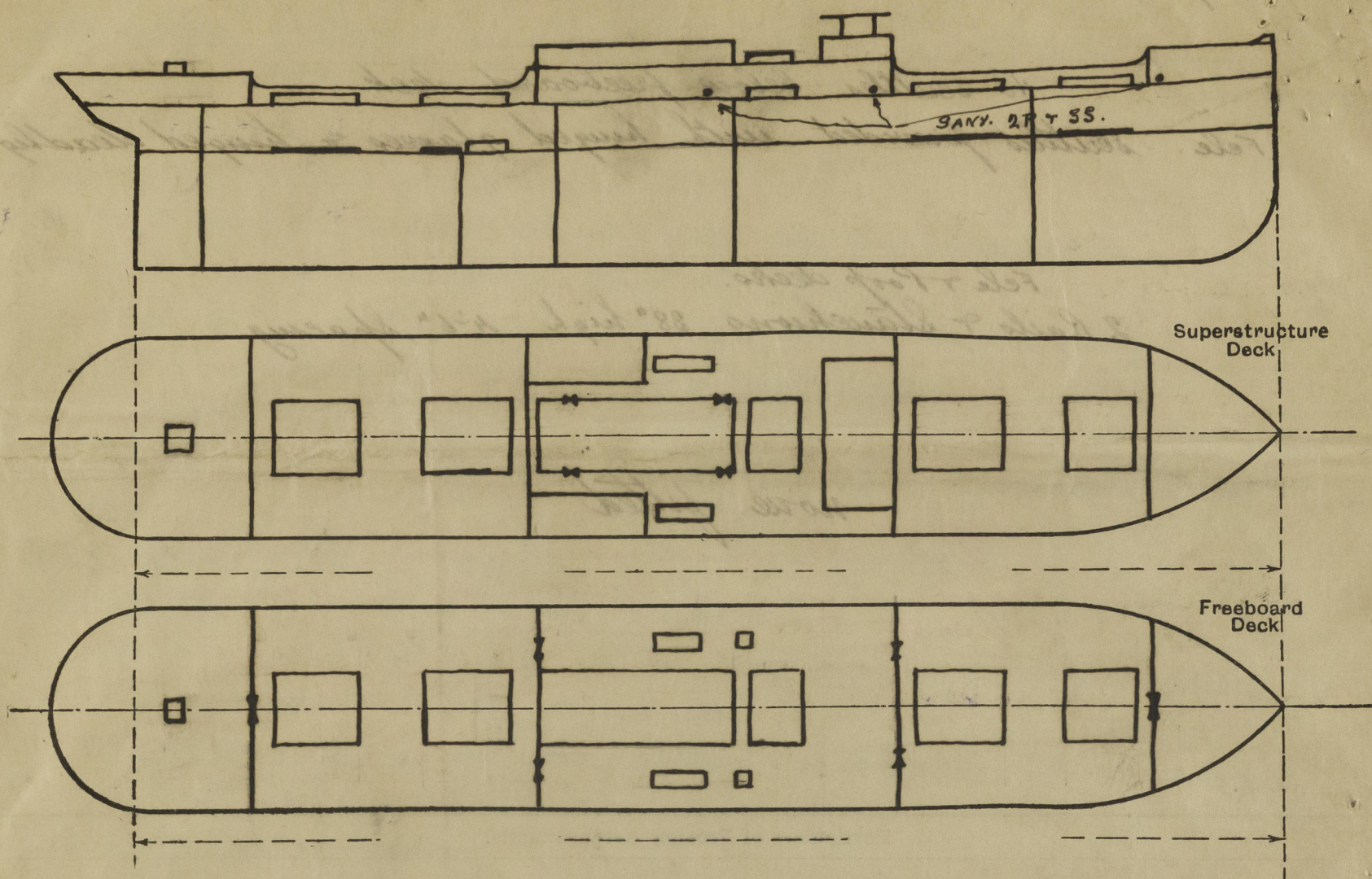
~~none fitted~~
Provision made for rigging *Upelenei* in
forward and after masts in accordance
with the Regulation.

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	✓	7/16"	6" x 3 1/2" x 1/2"	30"	none.	6'-0" x 4'-0"	18"	8'-0"
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead	✓	7/16"	4" x 3" x 1/4"	30"	none.	5'-6" x 4'-0"	23"	8'-0"
Bridge, Forward Bulkhead	✓	7/16"	9 x 3 1/2" BA.	30	Brackets top & bottom	5'-0" x 3'-0"	18"	8'-0"
Forecastle Bulkhead	✓	1/4"	3 x 3 x 7/16	30	none.	6'-0" x 3'-6"	18"	8'-0"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	✓							
Exposed Machinery Casings on Super- structure Decks	✓	7/16"	3 x 3 x 7/16	38"	Bkts top	5'-0" x 2'-0"	18"	7'-6"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	3/8"	7/16"	3 x 3 x 7/16	38"	Bkts top	none.	✓	8'-0"
Deckhouses on Flush Deck Ships ...								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).			
Poop Bulkhead	...	...	Strong wooden hinged door. can be replaced by 3" storm boards in riveted channels full height.
Raised Quarter Deck Bulkhead	...	...	3" storm boards in riveted channels full height.
Bridge, After Bulkhead	...	...	Steel hinged doors secured by dog clamps outside only.
Bridge, Forward Bulkhead	...	...	3" storm boards in riveted channels full height.
Forecastle Bulkhead	...	...	Steel & wood hinged doors manipulated both sides.
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	...	...
Deckhouses on Flush Deck Ships	...	...

Dunstaffnage

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:— This vessel is at present laid up in River Fal. No information is available regarding carrying out of survey *Spec. Survey No 3 now being completed.*
~~Repairs are necessary to some air pipes, ventilators & the fastenings of the two steel hinged doors on the bridge front.~~ *Repairs completed*
~~Covers for ventilators & hatch tarpaulins require to be placed in satisfactory condition & covers provided for air pipes.~~

Builder's name and yard number

Lithgows Ltd.

Names of sister ships

✓

Owners

Scottish Navigation Co Ltd.

(Glen & Co)

Fee £

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