Rpt. C.11.

FEB 20 1939 35928.

Index. No. (For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

having Poop, bridge and forecastle

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"BRITANNIA"	Norwegian Oslo	–	~10000	1939

Moulded Dimensions: Length 150,87m. Breadth 20,42m. Depth 10,41m.

Moulded displacement at moulded draught = 85 per cent. of moulded depth 21040 tons ex drawing ~~21062 " incl.~~

Coefficient of fineness for use with Tables

Port of Survey Hamburg

Date of Survey 17th Feb. 1939.

Name of Surveyor Th. Goering.

Particulars of Classification +100A1 "Carrying Petroleum in bulk" not completed.

Depth for Freeboard (D)

Moulded depth 10,41m

Stringer plate ... 21,5 m/m. ... 0,0215m

Sheathing on exposed deck

$T\left(\frac{L-S}{L}\right)$ =

Depth for Freeboard (D) =

Depth correction

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

(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) 20,42m.

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

Ship's Round of Beam = 0,41m

Difference

Restricted to

Correction = $\frac{\text{Diff}^{e}}{4} \times \left(1-\frac{S_1}{L}\right)$ =

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S_1)	Height	Height Correction	Effective Length (E)
Poop enclosed	37,53m.		2,44m.		
„ overhang	as sketch				
R.Q.D. enclosed ...	–				
„ overhang ...	–				
Bridge enclosed... ...	11,68m		2,21m.		
„ overhang aft ...	0,73m				
„ overhang forward	0,20m				
F'cle enclosed	17,11m.		2,29m.		
„ overhang	nil				
Trunk aft					
„ forward					
Tonnage opening aft ...					
„ „ forward					
Total					

Standard Height of Superstructure

„ „ R.Q.D.

Deduction for complete superstructure

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

„ „ $\frac{S_1}{L}$ =

„ „ $\frac{E}{L}$ =

Percentage from Table, Line A.
(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 =

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1		1,468m		1	
$\frac{1}{6}$L from A.P. ...		4		0,683m		4	
$\frac{2}{6}$L „ ...		2		0,168m		2	
Amidships ...		4		0,000m		4	
$\frac{2}{6}$L from F.P. ...		2		0,340m		2	
$\frac{1}{6}$L „ ...		4		1,328m		4	
F.P.		1		3,020m.		1	
Total ...							

$\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}}$ =

$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}}$ =

$\frac{\text{Length of enclosed superstructure}}{L}$ forward of amidships =

„ „ aft of „ =

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

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.

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

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

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ =

Tons per inch immersion at summer load water line

T =

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

=

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. ... ...

+

See attached Rpt. C 11 (Comth.)

Summer Freeboard =

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

Tropical Fresh Water Line	above	Centre of Disc	... ...	Tropical Fresh Water Freeboard	... ...
Fresh Water Line	„	„	... ...	Fresh Water „	... ...
Tropical Line	„	„	... ...	Tropical „	... ...
Winter Line	below	„	... ...	Winter „	... ...
Winter North Atlantic Line	„	„	... ...	Winter North Atlantic „	... ...

Britannia

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS.

	ON FREEBOARD DECK						ON FOREC. DECK		ON POOP DECK	
Description of Hatchway	1 to fore store	1 to aft store	30 to cargo tanks	4 to cofferd.	2 to oil fuel tanks	1 to fore dry cargo hold	1 to fore store	1 to fore dry cargo hold	1 to provision room	2 to oil fuel tank
Dimensions of Hatchway	800 × 600	1900 × 500	1876 × 1068	620 × 400	520 × 480	4800 × 3400	800 × 600	4110 × 5120	1100 × 1020	800 × 610
COAMINGS — Height above Deck	250	250	815	250	800	815	250	800	500	600
COAMINGS — Thickness Sides	10	10	11	10	11	10	10	11	10	10
COAMINGS — Thickness Ends	10	10	11	10	11	10	10	11	10	10
COAMINGS — Stiffeners	–	–	–	–	–	150.75.9,5	–	180.75.10	–	–
COAMINGS — Brackets, Stays	–	–	–	–	–	180.10	–	180.10	–	–
HATCH BEAMS — Number / Spacing / Scantling and Sketch	←	←	←	←	←	one on each side and end coaming →	—	one on each side and end coaming →	→	→
HATCH BEAMS — Bearing Surface										
FORE AND AFTERS — Number / Spacing / Unsupported Lengths / Scantling* and Sketch	←	←	←	←	←	flatbars by 230.90.11 and 3 flatbars 240.12	—	flatbars by 230.90.11 and 3 flatbars 240.12	→	→
FORE AND AFTERS — Bearing Surface										
HATCH COVERS — Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
HATCH COVERS — Thickness	10	10	15	10	12	12	10	12	10	10
HATCH COVERS — How fitted	hinged	hinged	hinged	hinged	hinged	hinged	hinged	hemp	hinged	hinged
HATCH COVERS — Bearing Surface	rubber packing	hemp packing	hemp packing	packing	packing	hemp packing	rubber packing	packing	rubber packing	hemp packing
Spacing of Cleats	←									
Number of Tarpaulins	←									

*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 :— Fiddley top 2800 mm. above poop deck.
Openings in fiddley top closed by hinged steel covers.
Funnel and ventilator coamings efficiently fastened to the fiddley deck.

Particulars of Flush Bunker Scuttles :—

none.

Particulars of Companionways :— The companions on poop deck to crews accommodations are situated inside the deck house. The entrance doors of the poop deck house are of teak wood 50 m/m thick; capable of being closed from both sides.
Sill of doors 430 mm above wood deck on poop deck.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—
On forecastle deck two ventilators to forw. dry cargo hold 375 m/m inside diam.; coaming 915 m/m high; 9 m/m thick.
" " " three " to store rooms 290 " " " ; " 915 m/m " ; 8,5 " "
" " " two " to forw. pumproom 375 " " " ; " 915 m/m " ; 9 " "
On freeboard deck two " to forw. & after cofferdam 200 " " " ; " 915 m/m " ; 8 " "
All ventilators are capable of being closed by steel caps and canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—
Air pipe to fore peak tank 650 mm. above forecastle deck.
Air pipe to after peak tank 650 mm above poop deck.
Air pipes to double bottom tanks 650 mm. above poop deck.
All air pipes are of substantial construction and fitted with hinged steel covers.

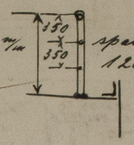
Particulars of Gangway Cargo and Coaling Ports :—

none.

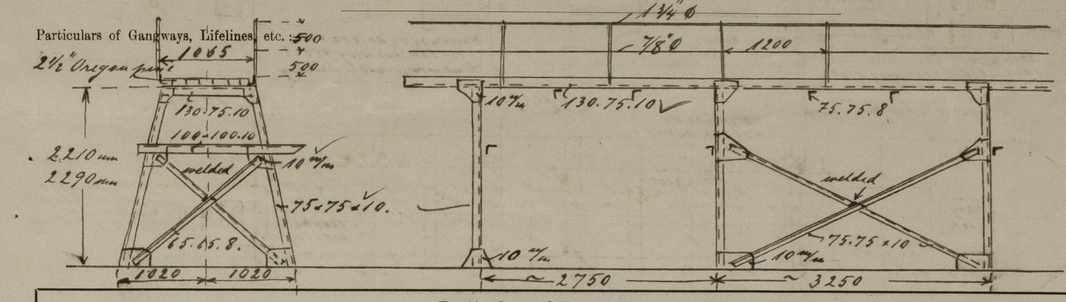
Particulars of Scuppers and Sanitary Discharge Pipes :—
7 scuppers on each side above freeboard deck 120 × 110 mm.
All sanitary discharge pipes are fitted with storm valves.

Particulars of Side Scuttles :—
Two side scuttles strongly constructed with hinged dead lights are fitted on port + stbd. side below freeboard deck aft in way of steering gear space.
Vertical distance of sill of lowest side scuttle above top of keel = 10700 mm.
Side scuttles in forecastle and poop spaces are of substantial construction and fitted with hinged dead lights.

Particulars of Guard Rails :—
Open rail on freeboard deck, forecastle and poop deck.



Particulars of Gangways, Lifelines, etc. :—



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				
Forward Well						

State position of each freeing port (F. and A. position and height above deck edge) — After Well :— – 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. –

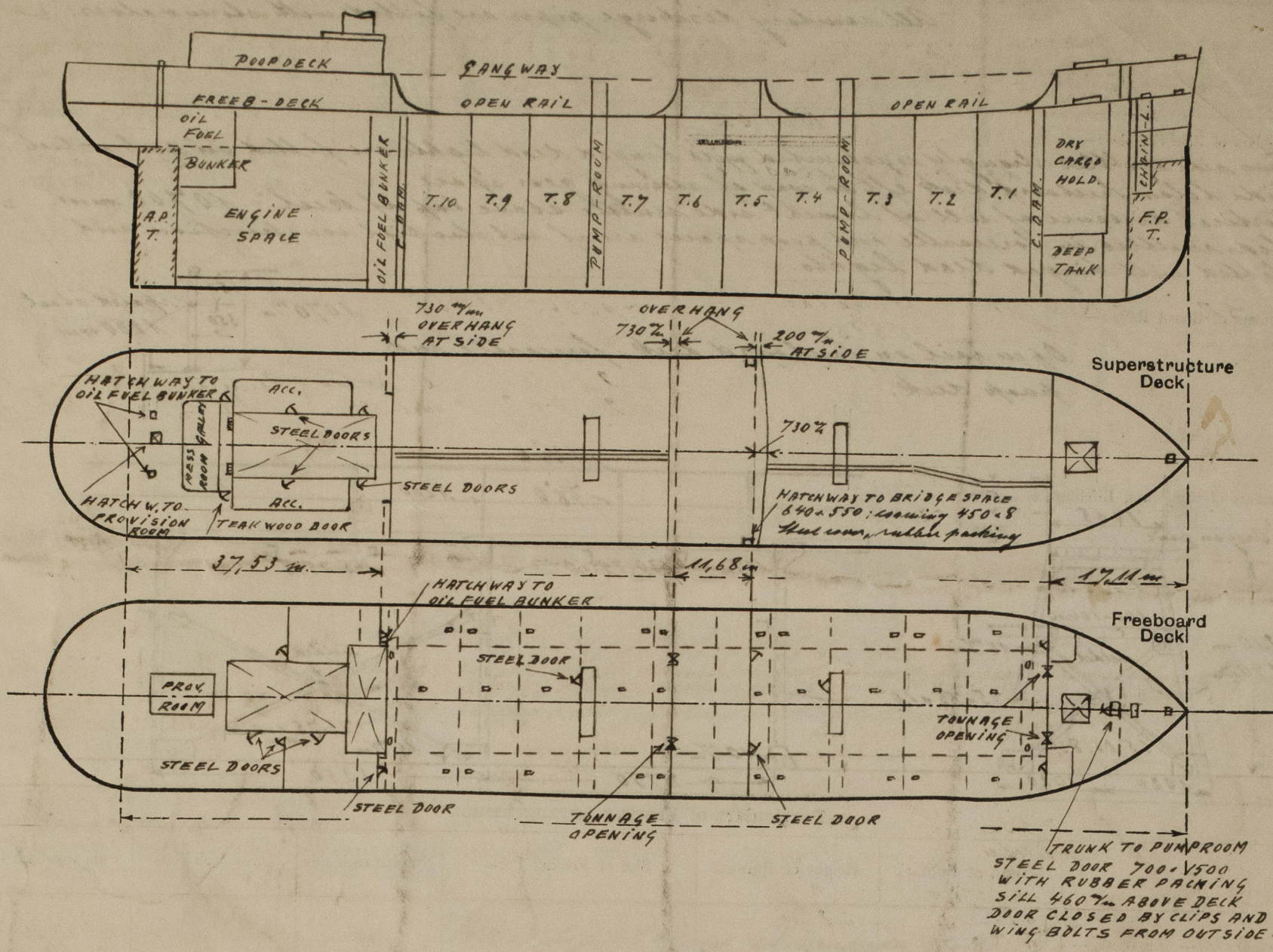
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead (at sides)	300 × 12	11,5	250.90.12,5	800	bracketed at top + bottom	700 × 1500	536	2440
Raised Quarter Deck Bulkhead	–	–	–	–	–	–	–	–
Bridge, After Bulkhead	250 × 12	8,0	130.65.8	700 - 870	welded at top, bracket at bottom	2a 950 × 1250	590	2210
Bridge, Forward Bulkhead	250 × 14	12 - 11,5	250.90.12	700 - 870	bracketed at top + bottom	2a 700 × 1500	460	2210
Forecastle Bulkhead	250 × 12	7,5	100.75.10	730	none	2a 950 × 1250 2a 700 × 1500	590 460	2290
PUMPROOM HOUSE Aft	250 × 10	8,0	150.75.10	870	bracketed at top + bottom	1a 700 × 1500	610	2135
PUMPROOM HOUSE Forward	250 × 10	8,0	150.75.10	870	bracketed at top + bottom	1a 700 × 1500	610	2135
Exposed Machinery Casings on Freeboard Deck	1150.150 - 14	13,5	300.90.15	870	bracketed at top + bottom	none	–	2440
Exposed Machinery Casings on Superstructure Decks	300 × 8,5	8,0	130.65.8	750	top electric welded	2a 700 × 1500	460	2440
Machinery Casings within Superstructures fitted with Class I Closing Appliances	300 × 8,5	7,5	115.65.8	1460	bracketed at top	2a 700 × 1650	350	2440
Deckhouses on Flush Deck Ships								

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

Poop Bulkhead	Two hinged steel doors, rubber packing, closed by clips and wing bolts from ~~outside~~ BOTH SIDES only. X
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	Two hatchway openings, closed by portable steel plates with 7/8" hook bolts, spaced 3067 m/m
Bridge, Forward Bulkhead	Two hinged steel doors, rubber packing, closed by clips and wing bolts from ~~outside only~~ BOTH SIDES. X Two hatchway openings, closed by portable steel plates with 7/8" hook bolts, spaced 3067 m/m X
Forecastle Bulkhead	Two hinged steel doors, rubber packing, closed by clips and wing bolts from ~~outside only~~ BOTH SIDES. X
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	Two hinged steel doors, rubber packing, capable of being manipulated from both sides.
Machinery Casings within Superstructures fitted with Class I Closing Appliances	Two hinged steel doors, closed by lock and key only.
PUMPROOM FREEB.-DECK Deckhouses on	One hinged steel door, rubber packing, capable of being manipulated from both sides.

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 :— Tanker with two longitudinal bulkheads.
The vessel has been surveyed during construction in docks and afloat.

Displacement (excl. bossing) in salt water at 27' draught = 19372 tons ; 67,9 tons per inch.
" " " " " at 28' " = 20180 " ; 68,4 " " "
" " " " " at 29' " = 20998 " ; 68,9 " " "
Displacement (incl. bossing) in salt water at 27' draught = 19394 tons ; 67,9 " " "
" " " " " at 28' " = 20202 " ; 68,4 " " "
" " " " " at 29' " = 21020 " ; 68,9 " " "

Builder's name and yard number Deutsche Werft A.G. Hamburg. Yard No. 217.

Names of sister ships "Germania" Yard No. 216. "Nueva Granada" Yard No. 181.

Owners The Texas Company A/S Oslo.

Fee RM. 4.00.— Received by me will be charged with First Entry.