

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

9 AUG 1933

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>AUCKLAND, N.Z.</u>
having <u>2 Decks, Steel & Web Frames.</u>					Date of Survey <u>5-33.</u>
<u>Poop, Bridge & Forecastle.</u>					Name of Surveyor <u>W. Richard Smith.</u>
(Type of Superstructures.)					Particulars of Classification <u>100.A1.</u>
Ship's Name <u>NUCULA.</u>	Nationality and Port of Registry <u>British LONDON.</u>	Official Number <u>123992.</u>	Gross Tonnage <u>4614.</u>	Date of Build <u>1906/9mo.</u>	Carrying petroleum in bulk.
Moulded Dimensions: Length <u>370'</u> Breadth <u>48'26"</u> Depth <u>30'-3"</u>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					
Coefficient of fineness for use with Tables _____					

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth	(a) Where D is greater than Table depth (D - Table depth) R =	Moulded Breadth (B)
Stringer plate	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>11'25"</u>
Depth for Freeboard (D) =		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	<u>94'66.</u>	<u>94'66.</u>	<u>7'-3"</u>		<u>94'66.</u>
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed	<u>25'00.</u>	<u>25'00.</u>	<u>7'-6"</u>		<u>25'00.</u>
„ overhang aft					
„ overhang forward					
F'cle enclosed	<u>39'00.</u>	<u>39'00.</u>	<u>7'-9"</u>		<u>39'00.</u>
„ overhang					
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.	47'00.	1	47'00.	37'00.	37'00.	1	37'00.
$\frac{1}{4}$ L from A.P.	20'915.	4	83'66.	18'00.	18'00.	4	72'00.
$\frac{3}{8}$ L „	5'17	2	10'34.	7'00.	7'00.	2	14'00.
Amidships	10	4	10.	10.	10.	4	10.
$\frac{3}{8}$ L from F.P.	10'34.	2	20'68.	13'00.	13'00.	2	26'00.
$\frac{1}{4}$ L „	41'83.	4	167'32.	44'00.	44'00.	4	176'00.
F.P.	94'00.	1	94'00.	93'00.	93'00.	1	93'00.
Total			423'00.				418'00.

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

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 = _____ Ft.
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
 $\Delta =$
Tons per inch immersion at summer load water line
 $T =$
Deduction = $\frac{\Delta}{40T}$ 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.	...	...	...	...

+	-

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	...	...
Fresh Water Line	„	„
Tropical Line	„	„
Winter Line below	„	„
Winter North Atlantic Line	„	„

Tropical Fresh Water Freeboard	...
Fresh Water	„
Tropical	„
Winter	„
Winter North Atlantic	„

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Lloyd's Register
Foundation

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Particulars of fiddle, funnel and ventilator coamings:— Machinery Aft:- Fiddle, Funnel & Ventilator coamings contained in Steel casings on Poop Superstructure Deck and protected in Poop on Freeboard Deck, Fiddle Gratings 7'-0" above Poop Deck, fitted with hinged steel covers permanently attached. 25" plate. Casings fitted with Steel Doors, hinged & permanently attached. Steel Skylights over Engine Room s'll 12" high above Boat Deck, Ventilators all excess height. Companion way & Skylight combined to Pump Room -Steel-6-7" High, s'll 3'-8" above Poop Deck, Steel doors permanently attached. All parts now seen in good condition and efficient.

Particulars of Companionways:—

<u>To Pump Room:</u>	Steel casing '36" plate 5'-9"-x-11'-7"-x-6'7". high, with steel skylights.
<u>all on Poop Deck.</u>	" <u>Quarters Aft:</u> In engine casing with Wood Door, Sill 18". opening 4'9"x24".
	" <u>Quarters Fore Deck:</u> In Forecastle protected.

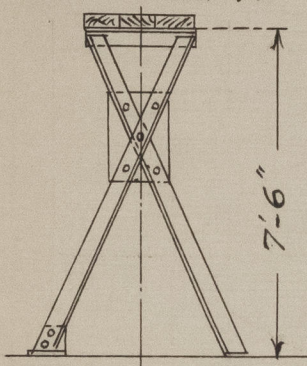
Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—

Particulars of Gangway Cargo and Coaling Ports:— **None fitted.**

Particulars of Gangways, Lifelines, etc.:—

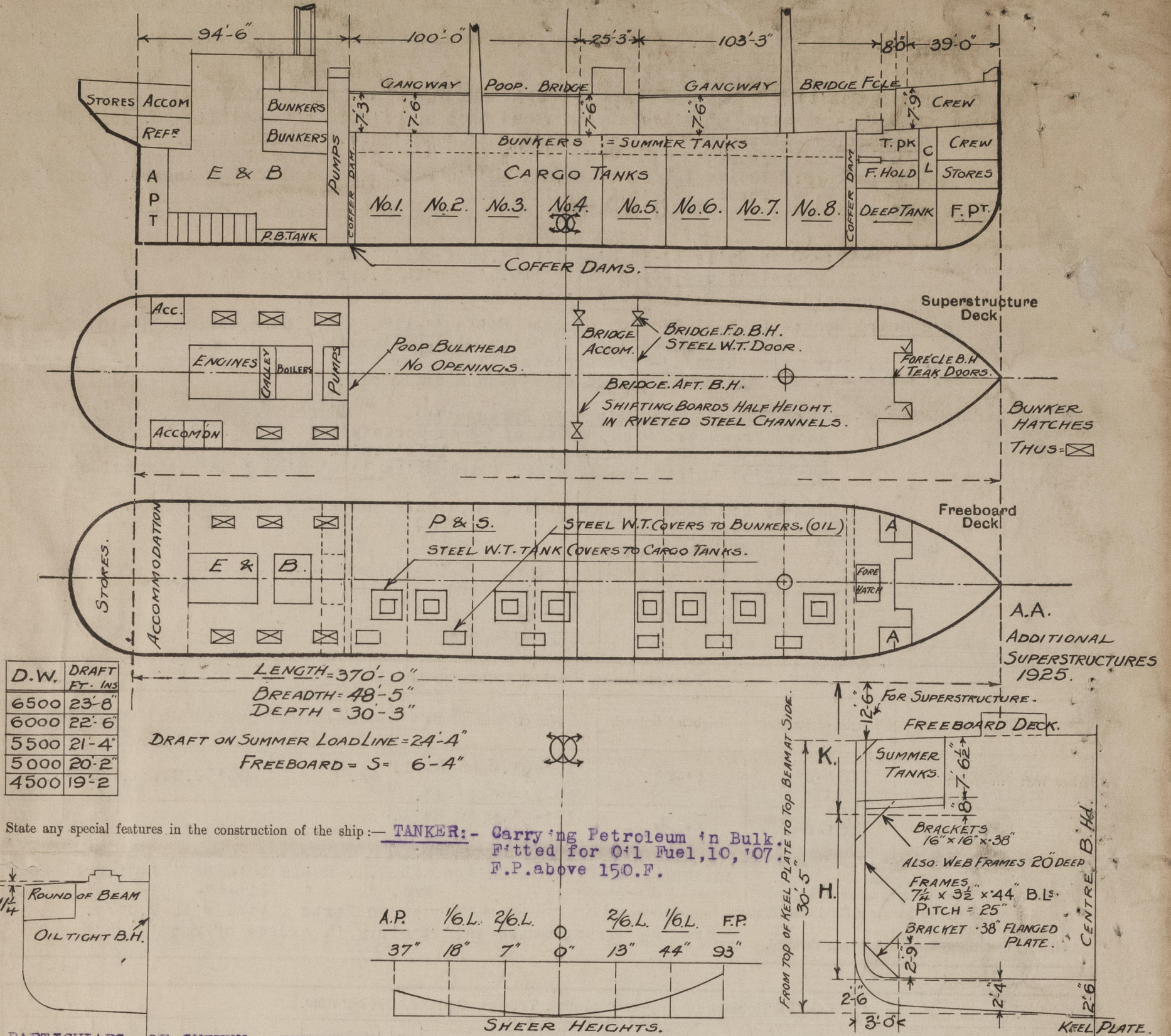
Poop to Bridge, — Bridge to Forecastle:— Continuous Gangway 7'-6" high, above Freeboard Deck, Total of 22 supports spaced 9'-0". built 3"x3"x138" angles, 6"x3"x38" deck attachment, Decking 10"x3" thick Oregon, fastened to cross angle bars 5"x3"x5" thirty inches wide. Guard rails 3'-0" high 3 bars, stanchions spaced 5'-0".

Gangway now seen in good condition, a safe and efficient structure.

[illegible]

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	No openings.
Raised Quarter Deck Bulkhead ...	---
Bridge, After Bulkhead	2. Class 11. wood doors also Shifting Boards in riveted channels half height
Bridge, Forward Bulkhead	1. Class 1. Steel W.T. Door, manipulated from both sides, efficient.
Forecastle Bulkhead	2. Class 11. Wood doors, efficient.
Exposed Machinery Casings on Free Board or Raised Quarter Decks ...	6. Class 1. Steel doors in E. & B. casings, permanent hinged, efficient. (POOP).
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructure not fitted with Class 1 Closing Appliances	1. Class 1. Steel door, manipulated both sides, efficient.
... ..	---

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:—



PARTICULARS OF SURVEY:- FREEBOARD SURVEY & DOCKING, 2nd. SPECIAL SURVEY No. 3.:- Vessel seen in Dry Dock and all outside shell plating, seams & fastenings examined, Bottom, stern frame, rudder, stern, keel, stem, all inside steel work, frames & fastenings, Decks, holds, cargo tanks, deep tank, D.B. tank, Peaks, chain locker, engine & boiler casings, bunkers, coffer dams, Superstructures - poop, bridge, forecabin with their casings & stiffeners, B.Hds. & stiffeners, Hatchways, Hatchway beams, coamings, carriers, fore & afters, hatches, tarpaulins, cleats, battens, wedges, ringbolts, steel tank covers with their joints, fastenings & fittings, all closing means for deck openings, Fiddle, funnel, ventilators coamings & covers, companionways, scuppers, sanitary discharges, side scuttles & deadlights, guard rails, gangways, bulwarks, all doors & bulkhead closing means, W.T. doors, skylights, particulars of length, breadth, depth, round of beam and existing freeboard markings verified, all requirements in accordance with the Safety & Loadline Convention Act. 1932. now seen, Vessel put in good order and condition, RECOMMENDED that existing Loadline be retained & Certificates issued accordingly.

Signed: *Michael Smith*
Surveyor to Lloyds Register.

Builder's name and yard number Armstrong, Whitworth & Co. Ltd. - (776). 1906-9mo.

Names of sister ships ---

Owners The Admiralty.

Fee £ 15 : 19 . 0 .

Received by me