

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **25628**
(For London Office only.)

27 FEB 1933

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Poop, Bridge + Forecastle

Port of Survey Hong Kong

Date of Survey Jan. 5th 9 + 23rd 1933.

Name of Surveyor J. S. Morrison

Particulars of Classification + 100 A 1
SS. No. 3-11.29.

Ship's Name PROSPER (Type of Superstructures.)

Nationality and Port of Registry Norwegian Haugesund

Official Number None

Gross Tonnage 2232

Date of Build 1917
12th month

Moulded Dimensions: Length 269.63' Breadth 40.0' Depth 21.5'

Moulded displacement at moulded draught = 85 per cent. of moulded depth 4549 tons

Coefficient of fineness for use with Tables .808

Depth for Freeboard (D)

Moulded depth 21.5'

Stringer plate .4404

Sheathing on exposed deck 2 1/2" Teak
none in bridge space.

$T \left(\frac{L-S}{L} \right) = 21 \times .494 = .10$

Depth for Freeboard (D) = 21.64

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R = (21.64 - 17.97) 2.074 = +7.61

(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) 40.0

Standard Round of Beam = $\frac{B \times 12}{50} = 9.6$

Ship's Round of Beam = 9 3/4

Difference .15 inches

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.15}{4} \times .4976 = -.02$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<u>26.08'</u>	<u>26.08</u>	<u>7'-3"</u>		<u>26.08</u>	Standard Height of Superstructure <u>6.196</u>
" overhang ...	<u>✓</u>					" " R.Q.D. <u>✓</u>
R.Q.D. enclosed ...	<u>✓</u>					Deduction for complete superstructure <u>32.96</u>
" overhang ...	<u>✓</u>					Percentage covered $\frac{S}{L} = 50.60$
Bridge enclosed ...	<u>76.37'</u>	<u>76.37</u>	<u>7'-3"</u>		<u>76.37</u>	" " $\frac{S_1}{L} = 50.23$
" overhang aft ...	<u>4.00'</u>	<u>3.00</u>	<u>7'-3"</u>		<u>3.00</u>	" " $\frac{E}{L} = 50.23$
" overhang forward ...	<u>29.98</u>					Percentage from Table, Line A.
Fore enclosed ...	<u>26.16</u>	<u>29.98</u>	<u>7'-3"</u>		<u>29.98</u>	(corrected for absence of forecastle (if required))
" overhang ...	<u>9.80</u>		<u>7'-3"</u>			Percentage from Table, Line B.
Trunk aft ...	<u>✓</u>					(corrected for absence of forecastle (if required))
" forward ...	<u>✓</u>					Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	<u>✓</u>					Deduction = <u>- 11.94</u>
" " forward ...	<u>✓</u>					
Total ...	<u>136.43</u>	<u>135.43</u>			<u>135.43</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<u>36.96</u>	1		<u>36.96</u>	<u>42.00</u>	<u>42.00</u>	1		<u>42.00</u>	Mean actual sheer aft = <u>Excess</u>
1/8 L from A.P. ...	<u>16.44</u>	4		<u>65.76</u>	<u>17.25</u>	<u>17.38</u>	4		<u>69.52</u>	Mean actual sheer forward = <u>Excess</u>
2/8 L " ...	<u>4.07</u>	2		<u>8.14</u>	<u>4.375</u>	<u>4.34</u>	2		<u>8.68</u>	Mean standard sheer aft =
Amidships ...		4			<u>0</u>		4			Mean standard sheer forward =
3/8 L from F.P. ...	<u>8.13</u>	2		<u>16.26</u>	<u>8.625</u>	<u>8.69</u>	2		<u>17.38</u>	Length of enclosed superstructure forward of amidships = <u>7.1</u>
1/2 L " ...	<u>32.89</u>	4		<u>131.56</u>	<u>34.75</u>	<u>34.76</u>	4		<u>139.04</u>	" " aft of " = <u>7.1</u>
F.P. ...	<u>73.92</u>	1		<u>73.92</u>	<u>90.00</u>	<u>90.00</u>	1		<u>90.00</u>	
Total ...				<u>332.60</u>					<u>366.62</u>	
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{332.60 - 366.62}{18} (.75 - .253) = -.94$										If limited on account of midship superstructure.
If limited to maximum allowance of 1 1/2 ins. per 100 ft.										

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =	<u>21.54</u>
Summer freeboard =	<u>2.77</u>
Moulded draught (d) =	<u>18.77</u>

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 4.69 = 4 3/4

Addition for Winter North Atlantic Freeboard (if required =

2

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 4708$

Tons per inch immersion at summer load water line

 $T = 22.76$ Deduction = $\frac{\Delta}{40T}$ inches= 5.17= 5 1/4

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.808 + .68}{1.36} = \frac{1.488}{1.36}$

	+	-
Depth Correction ...	<u>7.61</u>	
Deduction for superstructures ...		<u>11.94</u>
Sheer correction ...		<u>.94</u>
Round of Beam correction ...		<u>.02</u>
Correction for Thickness of Deck amidships ...		<u>1.20</u>
Other corrections, scantlings, etc. ...		
	<u>7.61</u>	<u>14.10</u>

Summer Freeboard = 33.36SUMMER 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 " " ...

10' = 2545 1/4 = 1334 3/4 = 1214 3/4 = 1216 3/4 = 172

Tropical Fresh Water Freeboard ...

Fresh Water " ...

Tropical " ...

Winter " ...

Winter North Atlantic " ...

2' 9 1/4" = 8451' 11 1/4" = 5912' 4" = 7122' 4 1/2" = 7243' 2" = 9663' 4" = 1017

22 JUN 1933

011579-011585-0101 1/2

8 APR 1933

MARKING FORM

16 JUN 1933

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

Description of Hatchway	On Freeboard Deck				On Superstructure Decks				On Fiddlely top to coal
	Hatchways	Coaling	Coaling	Coaling	Hatchways	Coaling	Coaling	Coaling	
Dimensions of Hatchway	19'7" x 16'	23'6" x 16'	13' x 3'3"	3'2" x 2'6"	2'1" x 1'4"	3'6" x 2'6"	2'1" x 2'	12' x 3'10"	
COAMINGS	Height above Deck	33 1/4"	33 1/2"	18"	18"	3"	16"	16"	11"
	Thickness	4 1/4"	4 1/4"	7/20"	7/20"	3 x 3 x 1/20"	7/20"	7/20"	7/20"
	Stiffeners	6 x 3 x 3/8"	8 x 3/4 x 3/8"	✓	✓	angle	✓	✓	✓
	Brackets, Stays	12 x 1/20"	12 x 1/20"						
HATCH BEAMS	Number	3	4	None	None	None	None	None	None
	Spacing	4'11"	4'11 1/2"						
	Scantling and Sketch	14" x 3 1/4" angles	14" x 3 1/4" angles						
	Bearing Surface	3 1/2"	3 1/2"						
FORE AND AFTERS	Number	None	None	None	None	None	None	None	None
	Spacing								
	Unsupported Lengths								
	Scantling and Sketch								
HATCH COVERS	Material	Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
	Thickness	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
	How fitted	F + A	F + A	F + A	F + A	F + A	F + A	F + A	F + A
	Bearing Surface	3"	3"	2"	2 3/4"	3"	2 1/4"	1 3/4"	2"
Spacing of Cleats		25"	25"	24"	18"	None	24"	11"	26"
Number of Tarpaulins		3	3	1	1	None	2	1	2

*Are wood fore and afters steel shod at all bearing surfaces? *Yes*
 Are battens and wedges efficient and in good condition? *Yes*
 Are tarpaulins in good condition and in accordance with rule requirements? *Yes*
 Are lashings provided in accordance with rule requirements? *Yes*

Particulars of fiddlely, funnel and ventilator coamings:— *Stokehold gratings covered by strong steel hinged covers.*
Fidley + funnel ventilation in efficient condition.
Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:— *None*

Particulars of Companionways:— *one companion on poop, leading to enclosed poop space, enclosed by steel deck house, doors of panelled wood 1 1/2" thick, (panels 1"), can be operated from both sides, sill 14".*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— *Bridge:— 16" goose neck 12" x 6" oval, to bridge space, 12" above deck.*
Forecastle:— 2-18" dia. coaming 3'6" x 8/20 to 7-1 Hold
4-12" " " 3'6" x 7/20 to Fele. space.
For Well:— 2-18" dia. coaming 3'3" x 8/20 to 7-2 Hold
Aft Well:— 2-18" dia. coaming 3'6" x 8/20 to aft Hold
2-18" " " 3'3" x 8/20 to aft Hold
(supported from Bridge deck)
Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
For Well:— 1-3" dia. x 25" high to F.P. tank
2-2 1/2" " " to D.B. tanks
Bridge:— 4-3" dia. x 9" high to D.B. tanks
Aft Well:— 2-2 1/2" dia. x 24" high to D.B. tanks
Poop:— 1-2 1/2" dia. x 24" high to A.P. tank.
all air pipes of goose neck type (steel pipes) + openings closed with wood plugs.

Particulars of Gangway Cargo and Coaling Ports:— *one coaling port P. & S. in bridge sides, 4'3" x 2'9", watertight, suitably stiffened + constructed.*
Four watertight cargo doors P. & S. between freeboard and second decks, 4' x 3-6", efficiently constructed.

Particulars of Scuppers and Sanitary Discharge Pipes:— *None below freeboard deck.*

Discharges from poop, bridge + forecastle fitted with gunmetal storm valves at ship's sides + efficient traps or wood plugs at inner ends.

Particulars of Side Scuttles: *Hinged deadlights fitted in Poop, bridge + forecastle spaces.*
Hinged deadlights fitted in tween decks, sill of lowest side scuttle 23" below freeboard deck amidships.
Deadlights + side scuttles between decks are strong construction

Particulars of Guard Rails:— *Forecastle:— Rails 3'9" high, with 3 rods + stanchions spaced 4'-0"*
Bridge:— Rails 3'6" high with 3 rods + teak rail, stanchions 4'-0"
Poop:— Rails 3'6" high with 3 rods + stanchions spaced 5'-0"
Bulwarks in wells 3'-7" high efficiently constructed + supported.

Particulars of Gangways, Lifelines, etc.:— *None*

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	68.54	3'-7"	3' x 1'-7"	3	14.25 sq ft	13.7 sq ft
Forward Well	62.66	3'-7"	3' x 1'-7"	3	14.25 sq ft	12.53 sq ft
State position of each freeing port (F. and A. position and height above deck edge) { After Well:— <i>11 1/2"</i> Forward Well:— <i>11 1/2"</i> <i>Horizontal protection bars fitted</i>						
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.						

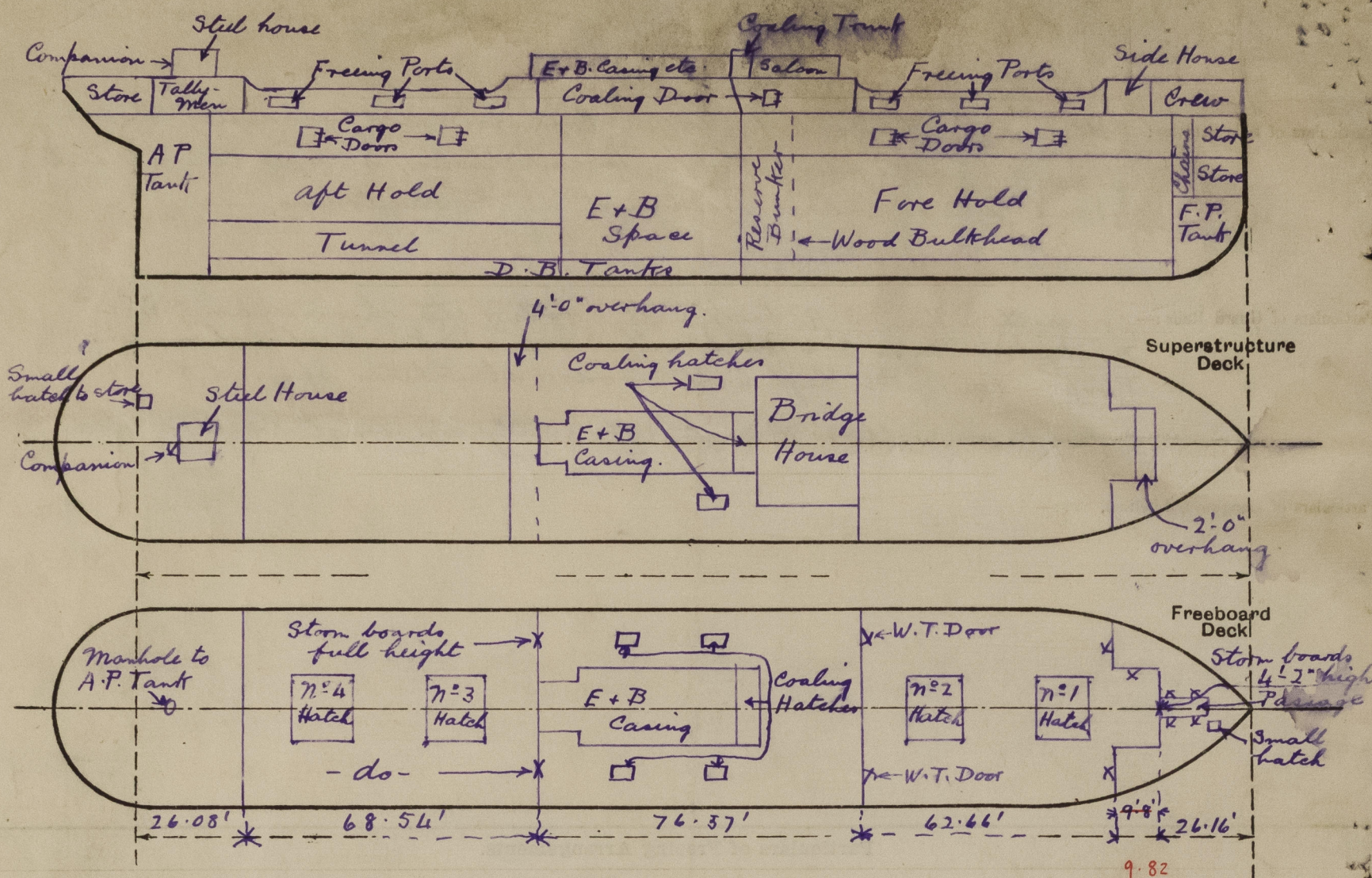
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	8/20	7/20	5 x 3 x 7/20 angles	31"	None	None	—	7'-3"
Raised Quarter Deck Bulkhead	✓							
Bridge, After Bulkhead	8/20	7/20	5 x 3 x 8/20 angles	31"	None	5' x 3'	13"	7'-3"
Bridge, Forward Bulkhead	8/20	7/20	6 x 3 x 3 x 8/20 channels	30"	Brackets	5' x 3'	12"	7'-3"
Forecastle Bulkhead	6/20	6/20	Plate flanged 2 1/2"	30"	✓	4'-10" x 2'-0"	16"	7'-3"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓							
Exposed Machinery Casings on Superstructure Decks	7/20	6/20	3 x 2 1/2 x 7/20 angles	25"	Brackets, Top + Bottom angles	5'-4" x 2'-0"	16"	7'-3"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	7/20	6/20	- do -	25"	Takes top + bott. angles	4'-10" x 2'-0"	19"	7'-3"
Deckhouses on Flush Deck Ships	✓							

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

Poop Bulkhead	No openings
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	Storm boards full height in riveted channels.
Bridge, Forward Bulkhead	Two hinged steel watertight doors, operated from outside only <i>fast right</i>
Forecastle Bulkhead	5 hinged steel doors, 4 hinged wood doors in passage + storm boards in riveted channels 4'-2" high at passage entrance, door can be operated from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Hinged steel doors, can be operated from both sides.
Exposed Machinery Casings on Superstructure Decks	Hinged steel doors, can be operated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Hinged steel doors, can be operated from both sides.
Deckhouses on Flush Deck Ships	✓

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:—



$$\begin{aligned} & \text{4' 2" } \\ & 35.98 - 9.82 \times 11 \\ & \quad \quad \quad 18 \\ & = 29.98 \end{aligned}$$

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

Vessel surveyed in dry dock, condition survey only,
found or placed in good general condition.

Particulars of present freeboard Certificate:—

Assigning Authority:—Det Norske Veritas
dated 6th April 1921
N^o 2115

FW = 2'-6"
T = 2'-7½"
S = 2'-10½"
W = 3'-1½"
W.N.A = 3'-3½"
B.O.T = 2'-11"

Measured from the level
of steel deck at side.

Builder's name and yard number. The Hongkong & Whampoa Dock Co. Ltd Hongkong.

Names of sister ships. "Prominent"

Owners. D/S A/S Produce (H. M. Wrangell & Co A/S Mgrs.)

Fee \$320.00

Received by me



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