

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index. No. 31930
 (For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Raised Quarter Wk & Low WaterPort of Survey Sunderland

(Type of Superstructures.)

Date of Survey 2nd May 1932

Ship's Name

PROWESS

Nationality and Port of Registry

LONDON
BRITISH

Official Number

149707

Gross Tonnage

207

Date of Build

1926
8Name of Surveyor Oliver Ewing
 Moulded Dimensions: Length 104.25 ft Breadth 23 ft Depth 9 ft
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 396.5 tons
 Coefficient of fineness for use with Tables .757

 Particulars of Classification +100 A1
carrying petroleum in bulk

Depth for Freeboard (D)			Depth correction		Round of Beam correction	
Moulded depth	...	9'-0" ✓	(a) Where D is greater than Table depth	✓	Moulded Breadth (B)	23 ft
Stringer plate	...	0.03	(D-Table depth) R = (9.03 - 6.95) .802	✓	Standard Round of Beam = $\frac{B \times 12}{50}$	5.52
Sheathing on exposed deck	Yellow Oak 2"	✓	= +1.67	✓	Ship's Round of Beam	6"
$T \left(\frac{L-S}{L} \right) =$			(b) Where D is less than Table depth (if allowed)	✓	Difference	.48"
			(Table depth-D) R =	✓	Restricted to	
Depth for Freeboard (D) =		9.03	If restricted by superstructures	✓	Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$= \frac{.48}{4} \times .5436 = -.07"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	✓					Standard Height of Superstructure <u>6.00</u> ✓
" overhang ...	✓					" " R.Q.D. <u>3.028</u> ✓
R.Q.D. enclosed ...	32.42 ✓	32.42	3'-0"	3.028	32.12	Deduction for complete superstructure <u>16.42</u> ✓
" overhang ...	✓		✓			Percentage covered $\frac{S}{L} = 45.64\%$ ✓
Bridge enclosed ...	✓		✓			" " $\frac{S_1}{L} = 45.64\%$ ✓
" overhang aft ...	✓		✓			" " $\frac{E}{L} = 40.93\%$ ✓
" overhang forward ...	✓		✓			Percentage from Table, Line A. Tanker
Forecastle enclosed ...	14.08	15.16	4'-3"	4.17	10.54	(corrected for absence of forecastle (if required)) <u>31.93%</u> ✓
" overhang WINGS ...	2.75		4'3 1/2 5'7	6.00		Percentage from Table, Line B.
Trunk aft ...	✓					(corrected for absence of forecastle (if required))
" forward ...	✓					Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	✓					Deduction = $16.42 \times .3193 = -5.24$ ✓
" forward ...	✓					
Total ...	47.58	47.58			42.66	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	20.42	1		20.42	27 1/2	18.00	1		18.00	Mean actual sheer aft = Deficient
1/4 L from A.P. ...	9.09	4		36.36	8 1/2	8.69	4		34.76	Mean actual sheer forward = Excess
2/4 L " ...	2.25	2		4.50	2 1/4	2.17	2		4.34	Mean standard sheer forward
Amidships ...		4		✓	✓	✓	4		✓	Length of enclosed superstructure forward of amidships =
3/4 L from F.P. ...	4.50	2		9.00	3 1/2	5.43	2		10.86	" " aft of " = } Tanker
1/4 L " ...	18.18	4		72.72	14 1/4	21.73	4		86.92	
F.P. ...	40.84	1		40.84	44 1/2	44.50	1		44.50	
Total ...	113.78			183.84					199.38	

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{15.54}{18} \left(.75 - .2282 \right) = -.45"$

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 = 9.03
 Summer freeboard = .58
 Moulded draught (d) = 8.45

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $2.11 = 2"$

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 $\frac{.757 + .63}{1.36} = \frac{1.387}{1.36}$
 Depth Correction ...
 Deduction for superstructures ...
 Sheer correction ...
 Round of Beam correction ...
 Correction for Thickness of Deck amidships ...
 Other corrections, scantlings, etc. ...

	+	-
Depth Correction	1.67	-
Deduction for superstructures	-	5.24
Sheer correction	-	.45
Round of Beam correction	-	.07
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	1.67	5.76

Summer Freeboard = 6.92

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 " " ...

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		To FORE HOLD		EXPANSION TRUNK HATCHES TO CARGO TANKS					
Dimensions of Hatchway		4'-x8'-0"		3'-7"x6'-0"					
COAMINGS	Height above Deck	30"		40"					
	Thickness	130		130					
	Sides	130		130					
	Ends	130		130					
	Stiffeners	none		2 1/2 x 2 1/2 x 20 Vertical	18" spacing				
	Brackets, Stays	none		none					
HATCH BEAMS	Number	none		none					
	Spacing								
	Scantling and Sketch								
	Bearing Surface	✓		none					
FORE AND AFTERS	Number	none		none					
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
	Bearing Surface								
HATCH COVERS	Material	PINE		STEEL					
	Thickness	2 1/2"		4"					
	How fitted	FLA		OT JOINT					
	Bearing Surface	2 1/2"							
Spacing of Cleats		21"							
Number of Tarpaulins		2							
<p>*Are wood fore and afters steel shod at all bearing surfaces? ✓</p> <p>Are battens and wedges efficient and in good condition? yes</p> <p>Are tarpaulins in good condition and in accordance with rule requirements? yes</p> <p>Are lashings provided in accordance with rule requirements? yes</p>									

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle, funnel & ventilator coamings strongly constructed & in good condition.
E.R. skylight strongly constructed of steel & in good condition.
no gratings.

Particulars of Flush Bunker Scuttles:—

none

Particulars of Companionways:—

One from upper deck to 't'le quarters holed in plate under head (see sketch)
1 1/2" teak door 19 1/2" x 43" sill 19"

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

2 gooreecks to fore hold 20" above deck. Canvas covers & gauze guards fitted.

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

1 gooreeck to fuel tank 3'-6" above upper deck
1 " fore peak 6" above 't'le deck holed under uprushing breasthook.
1 " after peak 10" above RQ DK.
2 " Cofferdam 20" above main deck wood plugs & covers.

Particulars of Gangway Cargo and Coaling Ports:—

none



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Particulars of Scuppers and Sanitary Discharge Pipes. —

Soil pipes fitted with bronze storm valves at ship's side. 1 in ER & 1 in fore hold.
all soil pipes lead from spaces above weather decks,
One 1½" rubber from galley sink leading to ship's side in after peak tank, no storm valve fitted.

Particulars of Side Scuttles:

Side scuttles all fitted with hinged deadlights.

Particulars of Guard Rails:—

on Yell. dk. 36" high. 2 rails stanchions 4 ft spacing.

Particulars of Gangways, Lifelines, etc.:—

~~no gangways & no permanent fittings for lifelines~~
Lifelines fitted in forward well.

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	32.4 ft	34"	54" x 9"	3	10.2 ft ² ✓	9.75 ft² ½ length open
Forward Well	57.75	36"	51" x 9"	4	12.75 10.2 ft ²	12.27 ft² " ✓

State position of each freeing port } After Well:— 11 ft 17 ft & 23 ft from fore end of RQD 3" above deck.
(F. and A. position and height above deck edge) } Forward Well:— 8.15. 21 & 27 ft from fore end of RQD 9" above deck.
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— no bars no shutters.

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	✓							
Raised Quarter Deck Bulkhead ...	✓	32 ✓	2½ x 2½ x 30 L double at brackets intermediate single	22 to 24"	intermediate to brackets ✓	none.	✓	36"
Bridge, After Bulkhead	✓							
Bridge, Forward Bulkhead	✓							
Forecastle Bulkhead	26 ✓	26 ✓	4 x 3 x 30 Wings Plating flanged 2½	24"	framed.	19" x 45"	19"	51"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	30 ✓	26	2½ x 2½ x 26	30"	Brackets, top & bottom	2R 45" x 51"	24"	6'-10"
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead	✓
Bridge, Forward Bulkhead	✓
Forecastle Bulkhead	1½" teak door to Yell. quarters. Steel doors to wing houses fastening both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	Steel hinged doors fastening both sides.
Exposed Machinery Casings on Superstructure Decks	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓
Deckhouses on Flush Deck Ships ...	✓



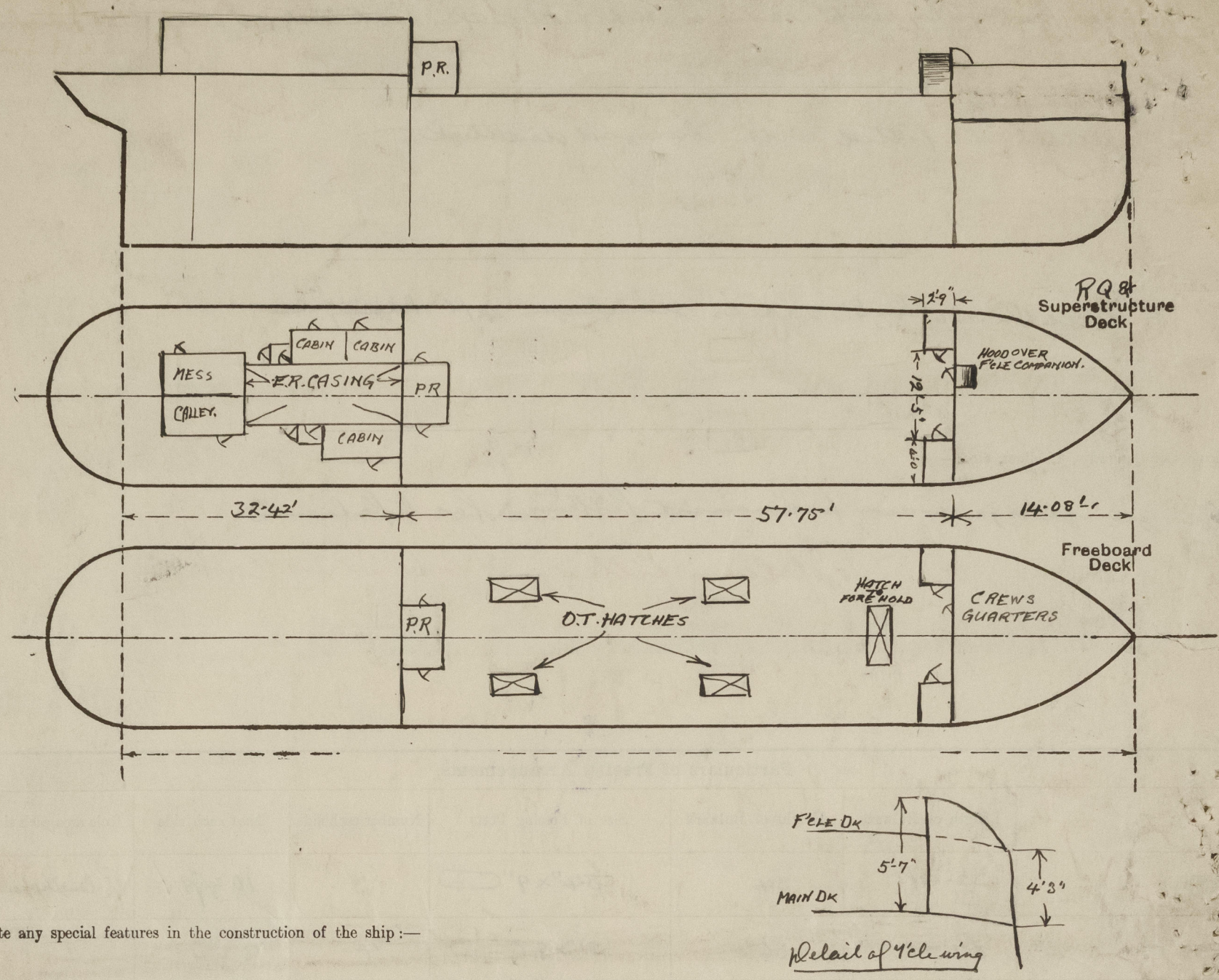
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B. Prods

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:—



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

Survey held afloat.

Fore castle 14.08
 S. House 2.75 x 100 1.08
 10.21 15.16 eqms.

Builder's name and yard number

Names of sister ships

Owners

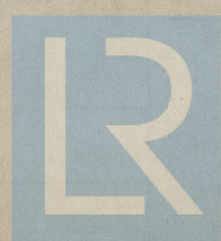
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