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Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for ^{MOTOR}Steamer, Sailing Ship, Tanker
having Poop, Bridge & Forecastle

(Type of Superstructures.)

Ship's Name "SEMINOLE"	Nationality and Port of Registry British LONDON.	Official Number 164612	Gross Tonnage 10889	Date of Build 1936.
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Moulded Dimensions: Length **485.0'** Breadth **69.75'** Depth **37.0'**
Moulded displacement at moulded draught = 85 per cent. of moulded depth **22950** tons
Coefficient of fineness for use with Tables **0.7545**

Port of Survey Hamburg.
Date of Survey 23rd - 25th March, 1936.
Name of Surveyor Friedrich Ohlgen.
Particulars of Classification + 100 A1.
Carrying Petroleum in bulk.

Depth for Freeboard (D) Moulded depth ... 37.0' Stringer plate ... 0.07' Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 37.07'	Depth correction (a) Where D is greater than Table depth 474 (D - Table depth) R = $(37.07 - 32.33) 3.00$ $= + 14.22''$ (b) Where D is less than Table depth (if allowed) (Table depth - D) R = \checkmark If restricted by superstructures \checkmark	Round of Beam correction Moulded Breadth (B) 69.75' Standard Round of Beam = $\frac{B \times 12}{50} = 16.74''$ Ship's Round of Beam = 16.75'' Difference Excess .01'' Restricted to Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.01}{4} \times .6249 = \text{Nil}$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	107.20'	107.20	8.0'	\checkmark	107.20	Standard Height of Superstructure <u>7'-6"</u>
" overhang ...						" " R.Q.D. \checkmark
R.Q.D. enclosed ...						Deduction for complete superstructure <u>42.00"</u>
" overhang ...						Percentage covered $\frac{S}{L} = 37.51\%$
Bridge enclosed...	39.37'	39.37	8.0'	\checkmark	39.37	" " $\frac{S_1}{L} = 37.51\%$
" overhang aft ...						" " $\frac{E}{L} = 37.51\%$
" overhang forward						Percentage from Table, Line A. <u>Tanker</u>
F'cle enclosed <u>open</u> ...	35.33'	35.33	7.5'	\checkmark	35.33	(corrected for absence of fore-castle (if required)) 28.51%
" overhang ...						Percentage from Table, Line B. \checkmark
Trunk aft ...						(corrected for absence of fore-castle (if required)) \checkmark
" forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...						Deduction = $42 \times .2851 = - 11.97''$
" " forward						
Total ...	181.90	181.90			181.90	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	58.50	1		58.50	74.88"	74.88	1		74.88	Mean actual sheer aft = <u>Excess</u>
$\frac{1}{4}$ L from A.P. ...	26.03	4		104.12	35.76"	35.76	4		143.04	Mean actual sheer forward = <u>Excess</u>
$\frac{2}{4}$ L " ...	6.44	2		12.88	10.10"	10.10	2		20.20	Mean standard sheer forward
Amidships ...	\checkmark	4		\checkmark	0	\checkmark	4		\checkmark	Length of enclosed superstructure forward of amidships = $\frac{L}{2}$
$\frac{3}{4}$ L from F.P. ...	12.88	2		25.76	15.12"	15.12	2		30.24	" " aft of " = <u>Tanker</u>
$\frac{1}{4}$ L " ...	52.06	4		208.24	54.72"	54.72	4		218.88	
F.P. ...	117.00	1		117.00	118.62"	118.62	1		118.62	
Total ...				526.50					605.86	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{79.36}{18} (.75 - .1875) = - 2.48''$
If limited on account of midship superstructure. \checkmark
If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. \checkmark

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Ft. Depth to Freeboard Deck = 37.07 Summer freeboard = 7.35 Moulded draught (d) = 29.72 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.43 = 7$\frac{1}{2}$" Addition for Winter North Atlantic Freeboard (if required) = 7.43 + 4.85 = 12$\frac{1}{4}$"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 21648 t. Tons per inch immersion at summer load water line $T =$ 70.6 t. Deduction = $\frac{\Delta}{40T}$ inches = 7.66" = 7$\frac{3}{4}$"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.755 + .68}{1.36} = \frac{1.435}{1.360}$ <table><tr><th></th><th>+</th><th>-</th></tr><tr><td>Depth Correction ...</td><td>14.22</td><td>-</td></tr><tr><td>Deduction for superstructures ...</td><td>-</td><td>11.97</td></tr><tr><td>Sheer correction ...</td><td>-</td><td>2.48</td></tr><tr><td>Round of Beam correction ...</td><td>-</td><td>-</td></tr><tr><td>Correction for Thickness of Deck amidships ...</td><td>-</td><td>-</td></tr><tr><td>Other corrections, scantlings, etc. ...</td><td>-</td><td>-</td></tr><tr><td></td><td>14.22</td><td>14.45</td></tr></table> Summer Freeboard = 88.31		+	-	Depth Correction ...	14.22	-	Deduction for superstructures ...	-	11.97	Sheer correction ...	-	2.48	Round of Beam correction ...	-	-	Correction for Thickness of Deck amidships ...	-	-	Other corrections, scantlings, etc. ...	-	-		14.22	14.45
	+	-																								
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Other corrections, scantlings, etc. ...	-	-																								
	14.22	14.45																								

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

Tropical Fresh Water Line above Centre of Disc ...	15 $\frac{1}{2}$ "	Tropical Fresh Water Freeboard ...	6'-11"
Fresh Water Line " " ...	7 $\frac{3}{4}$ "	Fresh Water " " ...	6'-8 $\frac{1}{2}$ "
Tropical Line " " ...	7 $\frac{1}{2}$ "	Tropical " " ...	6'-8 $\frac{3}{4}$ "
Winter Line below " " ...	7 $\frac{1}{2}$ "	Winter " " ...	7'-11 $\frac{3}{4}$ "
Winter North Atlantic Line " " ...	12 $\frac{1}{2}$ "	Winter North Atlantic " " ...	8'-4 $\frac{1}{2}$ "

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS							
Description of Hatchway		27 HATCHWAYS TO OIL TANKS.	3 BUNKER HATCHWAYS.	5 COFFERDAM HATCHWAYS.	5 BUNKER HATCHWAYS.	1 CARGO HOLD HATCHWAY.	2 HATCHWAYS TO FORE PEAK & AFTER PEAK.
Dimensions of Hatchway		7'0" x 4'0"	4'0" x 2'0"	23.5" diam.	23.5" diam.	16'0" x 8'0"	3'10" x 3'8"
COAMINGS	Height above Deck ...	31.5"	31.5"	23.5"	23.5"	31.5"	18"
	Thickness { Sides44"	.40"	.38"	.38"	.44"	.38"
	Stiffeners { Ends ...					5 x 3 1/2 x .44"	
	Brackets, Stays ...					3/8 x .44"	
HATCH BEAMS	Number						
	Spacing						
Scantling and Sketch ...			NO HATCHBEAMS.				
Bearing Surface							
FORE AND AFTERS	Number						
	Spacing						
	Unsupported Lengths ...						
	Scantling* and Sketch ...		NO FORE & AFTERS.				
Bearing Surface							
HATCH COVERS	Material	STEEL.	STEEL.	STEEL.	STEEL.	STEEL.	STEEL.
	Thickness44"	.40"	.40"	.40"	.44"	.40"
	How fitted	HINGED.	HINGED.	HINGED.	HINGED.	HINGED.	HINGED.
	Bearing Surface	PACKING.	PACKING.	PACKING.	PACKING.	PACKING.	PACKING.
Spacing of Cleats		14 HING. BOLTS.	8 HINGED BOLTS.	3 HINGED BOLTS.	3 HINGED BOLTS.	36 HINGED BOLTS.	8 HINGED BOLTS.
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? ✓ NONE. Are lashings provided in accordance with rule requirements? ✓							

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle top 5'0" above poop house. All openings also steel skylights closed by strong hinged steel covers. Funnel and ventilator coamings efficiently fitted to the top plating by riveted angles.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways:—

All companionways situated inside superstructures. Pump room houses and companion strongly built of steel plates and angles (See opposite). One opening in each, closed by strong hinged steel doors.

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

No ventilators in exposed position on freeboard deck. Ventilators on fore-castle deck 17" diam. coamings 36" x .40". All ventilator coamings efficiently riveted to the deck and fitted with screwed steel caps with packing.

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

All air pipes are of substantial construction, of full height and fitted with gauze and hinged steel covers.

Particulars of Gangway Cargo and Coaling Ports:—

None.



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Particulars of Scuppers and Sanitary Discharge Pipes —

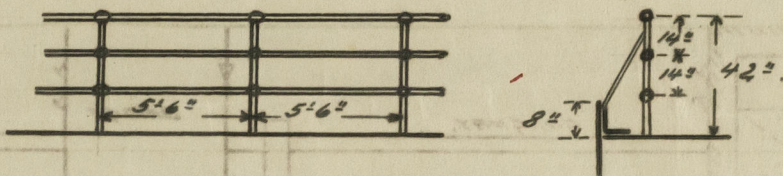
8 scuppers each side above freeboard deck
each 6" x 3" or 5" pipe at corners of bridge and poop.
All sanitary discharge pipes are fitted with storm valves.
The overboard scuppers from the poop space are fitted with
storm valves and non-detachable screw plugs at their inner ends.

Particulars of Side Scuttles:

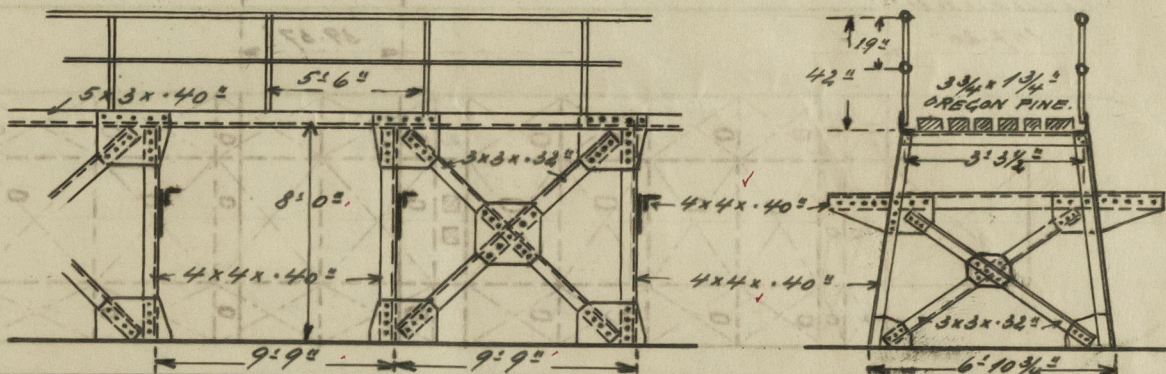
Side scuttles fitted in poop and bridge spaces only.
All side scuttles fitted with hinged dead lights.

Particulars of Guard Rails:—

Open rail on freeboard -
poop, bridge and forecastle 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			<i>Open rail</i>			
Forward Well						

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

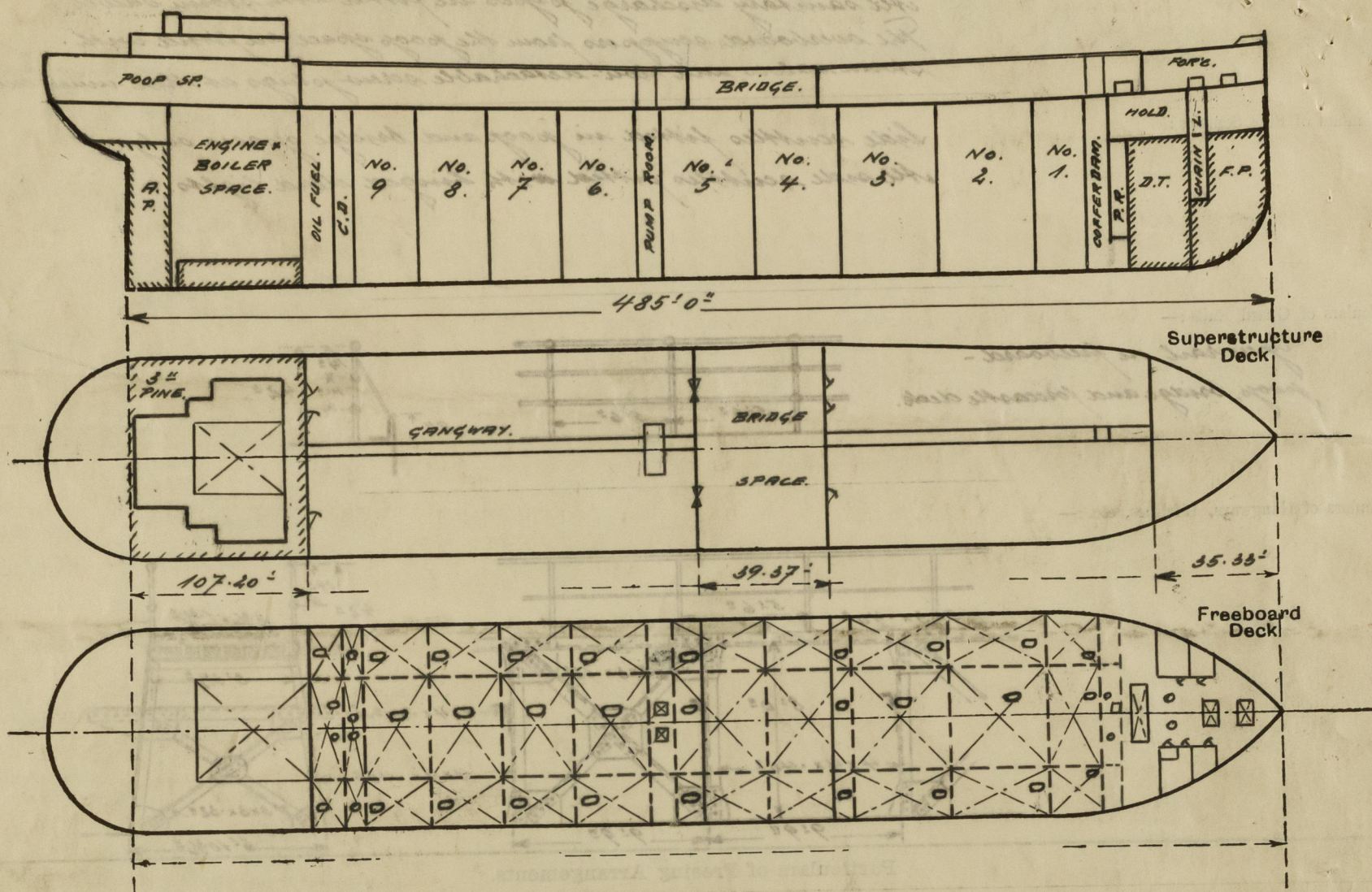
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	4' 6" x 52"	.48.	5' 11" x 3 1/2" x 46"	33" TO 24"	BRACKETS.	2. 5'0" x 2'4" 1. 4'6" x 2'8"	18"	8'0"
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead								
Bridge, Forward Bulkhead	4' 10" x 3 1/2" x 50"	.36.	5' 7" x 3 1/2" x 34"	42"	TOP-BRACKETS HEEL-WELDED.	2. 4'1" x 50"	23 1/2"	8'0"
Forecastle Bulkhead	4' 10" x 3 1/2" x 50"	.50.	5' 10" x 3 1/2" x 50"	42"	BRACKETS.	3. 5'0" x 2'4"	18"	8'0"
Trunk, After	4' 6" x 38"	.34.	5' 7" x 3 1/2" x 36"	30" TO 24"	TOP-LUGGED. HEEL-WELDED.	3. 5'0" x 2'4" 2. 4'6" x 2'8"	18"	7'6"
PUMPROOM HOUSE Trunk, Forward	4' 6" x 3 1/2" x 48"	.34.	5' 6" x 3" x 36" 4' 4" x 3" x 36"	30" TO 24"	BRACKETS.	1. 5'0" x 2'4"	18"	8'0"
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	POOP FRONT BULKH.		✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Superstructure Decks	4' 3 1/2" x 3" x 36"	.34.	4' 3 1/2" x 3" x 36"	30"	BRACKETS.	✓	✓	5'3"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	4' 6" x 3 1/2" x 38"	.34.	4' 4" x 3" x 36"	18" TO 22"	RIVETED TO BEAMS.	1. 5'0" x 2'4"	18"	7'6"
Deckhouses on Deck	4' 6 1/4" x 3" x 36"	.28.	5' 7" x 3" x 38" 4' 4" x 3" x 38"	30"	BRACKETS.	✓	✓	7'6"

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

Poop Bulkhead	Two hinged steel doors with packing and 8 turnbuckles, to be opened from both sides. One hinged steel door with 1 1/2" bolts, spaced 5 diam. apart. (Access door.)
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead	Two foremast openings, closed by stiffened steel plates with 12 hook bolts.
Bridge, Forward Bulkhead	Three hinged steel doors with packing and 8 turnbuckles, to be opened from both sides.
Forecastle Bulkhead	Starboard Longitudinal Bulkhead. 3 hinged steel doors with packing and 8 turnbuckles, to be opened from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	✓
Exposed Machinery Casings on Superstructure Decks	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓
Deckhouses on Deck	House & lamp. One hinged steel door with packing and 8 turnbuckles, to be opened from both sides.

Seminale

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:—

Fahker with longitudinal framing.

Builder's name and yard number *Alhorn & Goss, Hamburg. No. 502.*

Names of sister ships *Friedr. Krupp, Kiel. No. 540.* *Alrichan, Hamburg. No. 1350.* *"Weser" A.G., Bremen. No. 905.*

Owners *The British-Mexican Petroleum Co. Ltd. London.*

Fee *£ R.M. 400.—*
will be charged with first entry.

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