

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 13 JUL 1934
 Index. No. **34504**
 (For London Office only.)

W130

Single screw motor
 Computation of Freeboard for ~~Steamer~~, Sailing Ship, Tanker

having Complete Superstructure with tonnage opening aft, and topgallant forecastle above Superstructure deck.

(Type of Superstructures.)

Port of Survey Cause, Denmark.

Date of Survey 4-7-34

Name of Surveyor S. Sanderson

Ship's Name M/S. NORA MERSEK Nationality and Port of Registry danish Gross Tonnage ab. 5500 Date of Build 1934

Moulded Dimensions: Length 450'-0" Breadth 58'-0" Depth 39'-6" to 44'-0" at 29'-11" draught

Moulded displacement at moulded draught = 85 per cent. of moulded depth (25.43') 13215 tons

Coefficient of fineness for use with Tables .6987 a. 25 scale.

Particulars of Classification 1100 A 1 with freeboard class entered pleased.

Depth for Freeboard (D) Moulded depth 29'-11" Stringer plate 2nd Dk 11.75"/4 Sheathing on exposed deck none $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 29.96

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 = (30.00 - 29.96) 3.00 = -.12" ✓ If restricted by superstructures ✓

Round of Beam correction Moulded Breadth (B) 58'-0" Standard Round of Beam = $\frac{B \times 12}{50} =$ 13.92" ✓ Ship's Round of Beam 355"/4 = 13.97" ✓ Difference .05" excess Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.05}{4} \times .005 =$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S) FEET.	Equivalent Enclosed Length (S ₁)	Height FEET.	Height Correction	Effective Length (E)	
Poop enclosed ...	32.99'	32.99	9.58'	✓	32.99	Standard Height of Superstructure <u>7'-6"</u>
" overhang31	.15			.15	" " R.Q.D. <u>✓</u>
R.Q.D. enclosed ...						Deduction for complete superstructure <u>42.00</u>
" overhang ...						Percentage covered $\frac{S}{L} =$ <u>100% ✓</u>
Bridge enclosed ...						" " $\frac{S_1}{L} =$ <u>99.50% ✓</u>
" overhang aft ...	412.19'	412.19	9.58'	✓	412.19	" " $\frac{E}{L} =$ <u>99.50% ✓</u>
" overhang forward30	.22			.22	Percentage from Table, Line A. <u>99.38% ✓</u>
F'cle enclosed ...						(corrected for absence of forecastle (if required))
" overhang ...						Percentage from Table, Line B. <u>✓</u>
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...	4.21	2.22			2.22	Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	4.80		9.58'	✓		Deduction = <u>42.00 x .9938 = -41.73" ✓</u>
" forward ...						
Total ...	450.00	447.77			447.77	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	INCHES Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	55.00	1		55.00	55.86	80.86	1		80.86	Mean actual sheer aft = <u>Excess</u>
$\frac{1}{2}$ L from A.P. ...	24.475	4		97.90	23.36	33.81	4		135.24	Mean actual sheer forward = <u>Excess</u>
$\frac{2}{3}$ L " ...	6.05	2		12.10	6.22	9.00	2		18.00	Mean standard sheer forward = <u>Excess</u>
Amidships ...	✓	4		✓	0	-	4		-	Length of enclosed superstructure forward of amidships = <u>C.S.S</u>
$\frac{2}{3}$ L from F.P. ...	12.10	2		24.20	12.90	15.85	2		31.70	" " aft of " = <u>✓</u>
$\frac{1}{2}$ L " ...	48.95	4		195.80	48.55	59.67	4		238.68	
F.P. ...	110.00	1		110.00	109.12	134.12	1		134.12	
Total ...	✓			495.00	426.73				638.60	

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{143.6}{18} \times .250 = -1.99. ✓$$

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 = 29.96 Ft. Summer freeboard = 3.70 Moulded draught (d) = 26.28

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.57" = 167"/4

Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 13725 Tons per inch immersion at summer load water line $T =$ 52.55 Deduction = $\frac{\Delta}{40T}$ inches = 6.53 $d_{FW} = 167"/4$

TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.697 + .68}{1.36} = \frac{1.377}{1.36}$ 87.10 88.20

	+	-
Depth Correction ...	✓	.12
Deduction for superstructures ...	✓	41.73
Sheer correction ...	✓	1.99
Round of Beam correction ...	✓	-
Correction for Thickness of Deck amidships ...	✓	-
Other corrections, scantlings, etc. ...	✓	-
	-	43.84
Summer Freeboard =		<u>44.36</u>

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

Tropical Fresh Water Line above Centre of Disc ...	334"	Tropical Fresh Water Freeboard ...	793 "
Fresh Water Line " " ...	167 "	Fresh Water " " ...	960 "
Tropical Line " " ...	167 "	Tropical " " ...	960 "
Winter Line below " " ...	167 "	Winter " " ...	1294 "
Winter North Atlantic Line " " ...	✓	Winter North Atlantic " " ...	✓

Nova. Mers h.

Particulars of fiddley, funnel and ventilator coverings:—
 6 Ventilator to Motor room 915 m/m Diam. with Steel covering riveted to casing-
 top and fitted with steel coils.
 Motor room Skylight made of Steel with hinged steel flaps.
 Funnel covering of 6.5 m/m Steel plate riveted to casing top.

Particulars of Companionways :—
none /.

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

All coaming made of steel and securely riveted to steel decks.
Ventilator coamings on fore-castle deck 9-10" thick, 915-1525 mm high.
" " " upper " 89-10" thick, 915 x 1325 x 1525 mm high.
all ventilators properly stiffened when necessary and fitted with steel coals,
steel plugs & canvas covers.

Steel pipes 500^M/m high above superstructure deck with swan neck and wire gauge and fitted with approved closing appliances.

Particulars of Gangway Cargo and Coaling Ports:—
none. ✓

5 Scuppers 4 1/2" diam. each side from tween deck space leading overboard made of cast steel with storm valve. ✓ all sanitary pipes discharge above foreboard deck, made of mild steel ~~storm valves~~ with cast steel storm valves. ✓

Particulars of Side Scuttles:

no Side Scuttles below 2 nd deck ✓				
9"	side scuttles in fore castle with	8-10" M	Securt	glas and dead light ✓
12"	" " " " " " " "	8-10 "	"	" " " " ✓
10"	" " " " " " " "	8-10 "	"	" " " " ✓

Particulars of Guard Rails:—
forecastle deck: guard rails 3'6" high 3 rails ✓
upper decks: bulwark 4'6" high 6.5 mm plate. Stays 180x75x95 spacing at 1450 mm
freeing ports fitted with 3 rails 22 mm diam. ✓

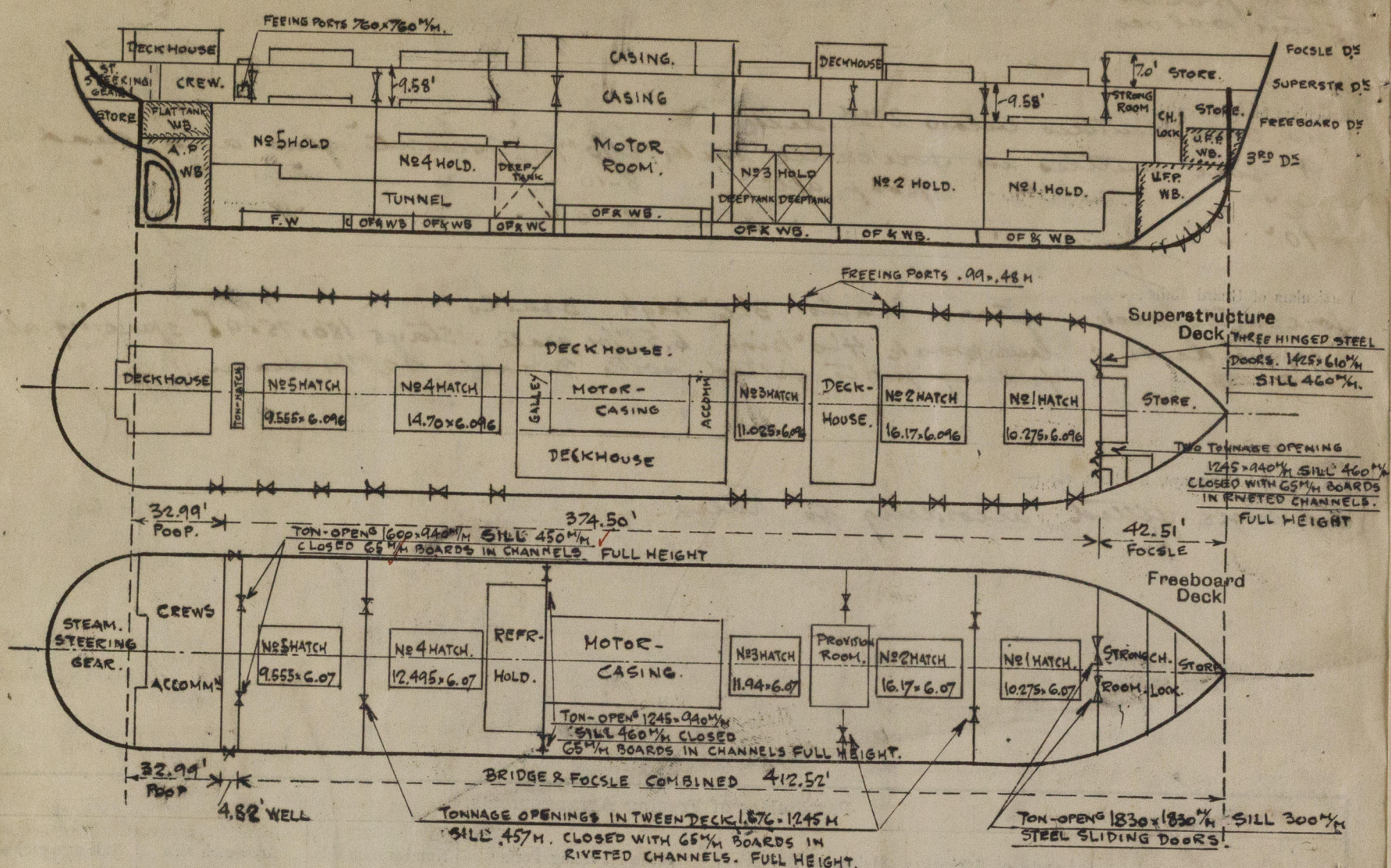
Life lines fitted according to Rules. ✓

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	6.5 ^m / ₂	6.5 ^m / ₂	115x65x7 ^m / ₂ 5	762 ^m / ₂	none	none			
Raised Quarter Deck Bulkhead									
Bridge, After Bulkhead	6.5 ^m / ₂	6.5 ^m / ₂	115x65x9 ^m / ₂ 5	762 ^m / ₂		1600x940 ^m / ₂	450 ^m / ₂		
Bridge, Forward Bulkhead	7 ^m / ₂	6.5 ^m / ₂	150x75x8 ^m / ₂ 5	610 ^m / ₂	bracket at top, slings underneath below deck	none			
Forecastle Bulkhead									
Trunk, Aft									
Trunk, Forward									
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	7.5 ^m / _m	6.5 ^m / _m	130x65x9.5 ^m / ₄ 75x65x7.5 ^m / ₄	735 ^m / _m	(carried upwards and downwards with no coaming plates)	none		1100 ^m / _m	
Deckhouses on Flush Deck Ships									

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
After Bulkhead	No openings.
Raised Quarter Deck Bulkhead	✓
Forward Bulkhead	Closed with 65 in boards in riveted camels full height. (one side)
Bridge, Forward Bulkhead	
Forecastle Bulkhead	
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 Flush Deck Ships	

W464-0189 2/2

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:—

Particulars for: Tonnage hatch on upper deck, 6.17 x 1.28 MET. Coaming 230 x 90 x 11 M. 5' cover 75 M/M pine.

Trimming hatches on 2nd deck, 6.60 x 6.10 M/M coaming 230 x 90 x 11 5' 65 M/M pine covers iron grating. Bearing surface 75 M/M, tarpaulins, cleats or bolting arrangements in accordance with Convention requirements.

Load displacement (26'-3") 13725 tons a 35 cwt/ft.

Tons pr. inch. at Load Water line. (26'-3") = 52.55'

13725
13
6
13745

Builder's name and yard number. Odense Staal-skibsværft, ved A. P. Möller, Yard No 52.

Names of sister ships.

Owners Messrs A/S Dampskibsselskabet "Svendborg", Svendborg & O/s of 1912 A/S. Copenhagen

Fee £ 9 per Received by me



© 2020
Lloyd's Register
Foundation