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Owners C11

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Ship's Name "NORHVAL"	Official Number 16368	Nationality and Port of Registry NORWEGIAN LARVIK	Gross Tonnage 16368	Date of Build 11-1945	Port of Survey KIEL
Moulded Dimensions: Length B.P. 601-0' Breadth 74'-0' Depth 57'-0' TO FLENSING DECK					Date of Survey DURING LENGTHENING
Freeboard Length 601-75' TO 1/2 OF RUDDER STOCK AT S.L.W.L.					Surveyor's Signature T.A. Blagburn
Moulded displacement at moulded draught = 85 per cent. of moulded depth 53270 tons					Particulars of Classification +100A1 WITH FBD CARRYING OIL IN BULK FP ABOVE 150°F
Coefficient of fineness for use with Tables .864					

DEPTH FOR FREEBOARD (D).

Moulded depth **TO FLENSING D.K.** ... **57'-0"**

Stringer plate **.76"** ... **0.14**

Wood Sheathing on exposed deck

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **57.14**

DEPTH CORRECTION.

(a) Where D is greater than Table depth (D-Table depth) B = **(57.14 - 40.12) 3 = +51.06**

(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) **74'-0"**

Standard Round of Beam = $\frac{B \times 12}{50} =$ **17.76"**

Ship's Round of Beam **66"**

Difference **11.07"**

Restricted to **74'-0"**

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L} \right) = \frac{11.07}{4} \times \left(1 - \frac{11.07}{74} \right) = +2.29"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	97'-00"	97'-00"	8'-0"		97'-00"
" overhang ...	12'-00"	6'-00"			6'-00"
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	109'-00"	103'-00"			103'-00"

Standard Height of Superstructure **7.50'**

" " R.Q.D. **42"**

Deduction for complete superstructure **18.11**

Percentage covered $\frac{S}{L} =$ **17.12**

" " $\frac{S_1}{L} =$ **8.56**

" " $\frac{E}{L} =$ **17.12**

Percentage from Table, Line A. **8.56**

(corrected for absence of fore-castle (if required))

Percentage from Table, Line B.

(corrected for absence of fore-castle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **42" x .0956 = -3.60"**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	70.18	1		70.18	3.62	3.62	1		3.62
1/2 L from A.P. ...	31.23	4		124.92	-		4		
1/4 L " ...	7.72	2		15.44	-		2		
Amidships ...	0	4		0	0	0	4		0
3/4 L from F.P. ...	15.44	2		30.88	-		2		
3/2 L " ...	62.46	4		249.84	.375	.38	4		1.52
F.P. ...	140.35	1		140.35	36.00	36.00	1		36.00
Total ...				631.61					41.14

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{590.47}{18} = +21.63"$

If limited on account of midship superstructure.

FLENSING DECK AT CENTRE IS HORIZONTAL 57'-6" ABOVE BASE.

AND THEN A STRAIGHT LINE TO F.P.

Mean actual sheer aft = **< 1**

Mean standard sheer aft = **< 1**

Mean actual sheer forward = **< 1**

Mean standard sheer forward = **< 1**

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction = $\frac{.6574}{18} = +21.63"$

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 = **57.14**

Summer freeboard = **22.81**

Moulded draught (d) = **34.33**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches = **8.58" = 8 1/2"**

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

SEE OVERLEAF

Displacement in salt water at summer load water line

$\Delta = 36846$

Tons per inch immersion at summer load water line

$T = 96.10$

Deduction = $\frac{\Delta}{40 T}$ inches

= **9.58**

= **9 1/2"**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ... **51.06**

Deduction for superstructures ... **3.60**

Sheer correction ... **21.63**

Round of Beam correction ... **2.29**

Correction for Thickness of Deck amidships ... **2.78**

Other corrections, scantlings, **51.86**

a summer moulded draught of **34.33 ft.**

129.94

147.53

129.82

3.60

126.22

Summer Freeboard = **273.75**

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

Tropical Fresh Water Line above Centre of Disc **4.57 mm 18"**

Fresh Water Line " **241 ... 9 1/2**

Tropical Line " **216 ... 8 1/2**

Winter Line below " **216 ... 8 1/2**

Winter North Atlantic Line " **...**

Tropical Fresh Water Freeboard **6496**

Fresh Water " **6712**

Tropical " **6737**

Winter " **7169**

Winter North Atlantic " **...**

6953 mm, 22'-9 3/4"

21'-3 3/4"

22'-0 1/4"

22'-1 1/4"

23'-6 1/4"

Northval

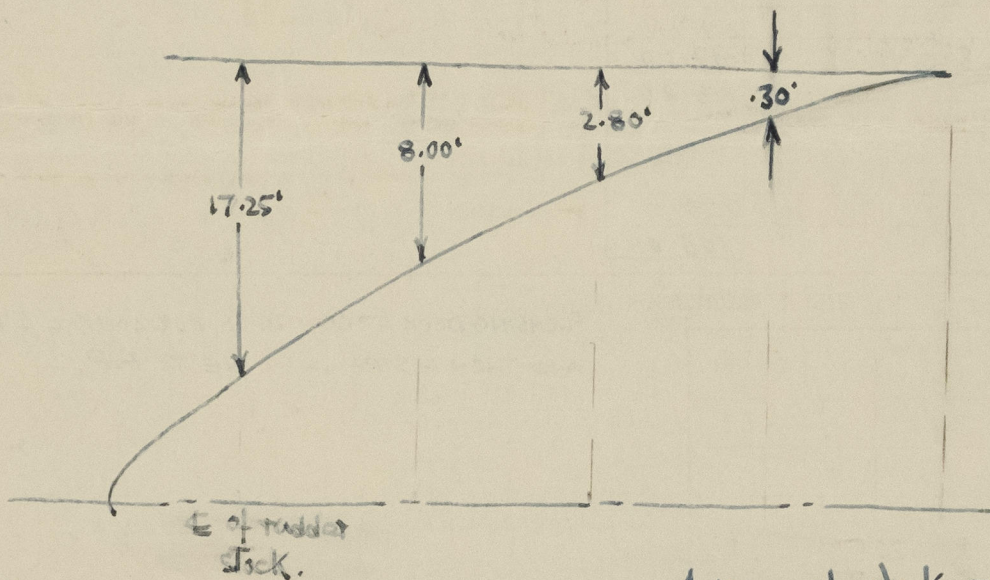
A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

TOTAL DISPLACEMENTS INCREASED DUE TO LENGTHENING OF SHIP.

NEW DISPLACEMENTS AS FOLLOWS:-

- 85 D = 48'-5.4" = 53270 TONS
- 75 D = 42'-9" = 46680 TONS = 97 TONS PER INCH
- 70 D = 39'-10.8" = 43320 TONS = 96.7 TONS PER INCH
- 65 D = 37'-0.6" = 40010 TONS = 96.4 TONS PER INCH
- 60 D = 34'-2.4" = 36700 TONS = 96.1 TONS PER INCH

Tab



1	17.25	1	17.25
2	8.00	4	32.00
3	2.80	2	5.60
4	.30	4	1.20
5	0	1	0
			<u>56.05</u>

$$56.05 \times \frac{1}{3} \times 28.44 = 531.3 \text{ ft}^2$$

$$- \times 18 = 9564 \text{ ft}^3$$

$$\text{Area of deck} = (535.75 \times 74 \times .85 + 66 \times 74)$$

$$= 33690 + 4884 = 38,574 \text{ ft}^2$$

$$\text{Correction for loss of buoyancy} = \frac{9564 \times}{38574} \times 12 = 2.98''$$

Trade of ship WHALE-OIL FACTORY

Names of sister ships S/S "SOUTHERN VENTURER" 41429

Builder's name and yard number FURNESS S B CO LTD YARD NO 388

Owners HVALFANGERSLSK POLARIS A/S & HVALFANGERSLSK GLOBUS A/S
MANAGERS MELSON & MELSON.

Fee £ WITH: RPT 8:

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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