

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR ~~TANKER~~ TANKER.) & WHALE-OIL FACTORY.

MOB. 17870.

Ship's Name FURNESS. S.B. CO. LTD YARD N: 388 NORVAL	Official Number	Nationality and Port of Registry NORWEGIAN.	Gross Tonnage 17,000 APPROX.	Date of Build 1945	Port of Survey MIDDLESBROUGH
Moulded Dimensions: Length 535'-0" Breadth 74'-0" Depth 57'-0" To FLENSING DECK. EXTREME DISPLACEMENT AT MLD DRAUGHT OF 34'-4" (T.P. 85.67, Block 8258) = 32,350 TONS. Moulded displacement at moulded draught = 85 per cent. of moulded depth = 48.45' = 46,250 tons. " " " " " = (-85 x 49' FLAT) = 41.64' = 39,450 TONS. Coefficient of fineness for use with Tables 843					Date of Survey WHILE BUILDING.
Surveyor's Signature DeYoung.					Particulars of Classification 100 A.1. CARRYING PETROLEUM IN BULK. (CLASS CONTEMPLATED)

DEPTH FOR FREEBOARD (D). Moulded depth To FLENSING DECK. ... 57.00' Stringer plate .76"06' Sheathing on exposed deck 3" SHEATHING $T \left(\frac{L-S}{L} \right) = \text{NOT BOLTED TO DECK}$ ✓ Depth for Freeboard (D) = 57.06'	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = $(57.06 - 57.0) \times 3 = +64.05'$ (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' Standard Round of Beam = $\frac{B \times 12}{50} = 17.76'$ Ship's Round of Beam $\frac{1}{2} \times 36" = 6.69'$ equivalent Difference $\frac{1}{2} \times 11.07" = 11.07'$ Restricted to $\frac{1}{2} \times 74' = 37'$ Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L} \right) = \frac{11.07}{4} \times 0.8077 = +2.24'$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Fore 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	7.5'
" " R.Q.D.	✓
Deduction for complete superstructure	42'
Percentage covered $\frac{S}{L} =$	20.34
" " $\frac{S_i}{L} =$	19.23
Percentage from Table, Line A.	9.61
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	✓
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	✓
Deduction = $42 \times 0.0961 =$	-4.04

SHEER CORRECTION.

FLENSING DECK AT CENTRE IS HORIZONTAL
57'-6" ABOVE BASE FROM A.P. TO 96'-0" FROM F.P.
& THEN A STRAIGHT LINE TO F.P.

Mean actual sheer aft	} Deficient
Mean standard sheer aft	
Mean actual sheer forward	} Excess
Mean standard sheer forward	
Length of enclosed superstructure forward of amidships	} Nil
" " aft of "	

Length of enclosed superstructure forward of amidships =
" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{524.07(-.75 - .1017)}{18} = +18.87'$
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 = **57.06**
Summer freeboard = **22.743**
Moulded draught (d) = **34.33**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **8.58**
Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 32350$
Tons per inch immersion at summer load water line
T = **85.67**
Deduction = $\frac{\Delta}{40 T}$ inches = **9.44**
= **9.2**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

Total

Summer Freeboard = **272.75**

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

Tropical Fresh Water Line above Centre of Disc ... **18"**
Fresh Water Line " " ... **9 1/2"**
Tropical Line " " ... **8 1/2"**
Winter Line below " " ... **8 1/2"**
Winter North Atlantic Line " " ... **-**

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

22'-8 3/4"**21'-2 3/4"****21'-11 1/4"****22'-0 1/4"****23'-5 1/4"**



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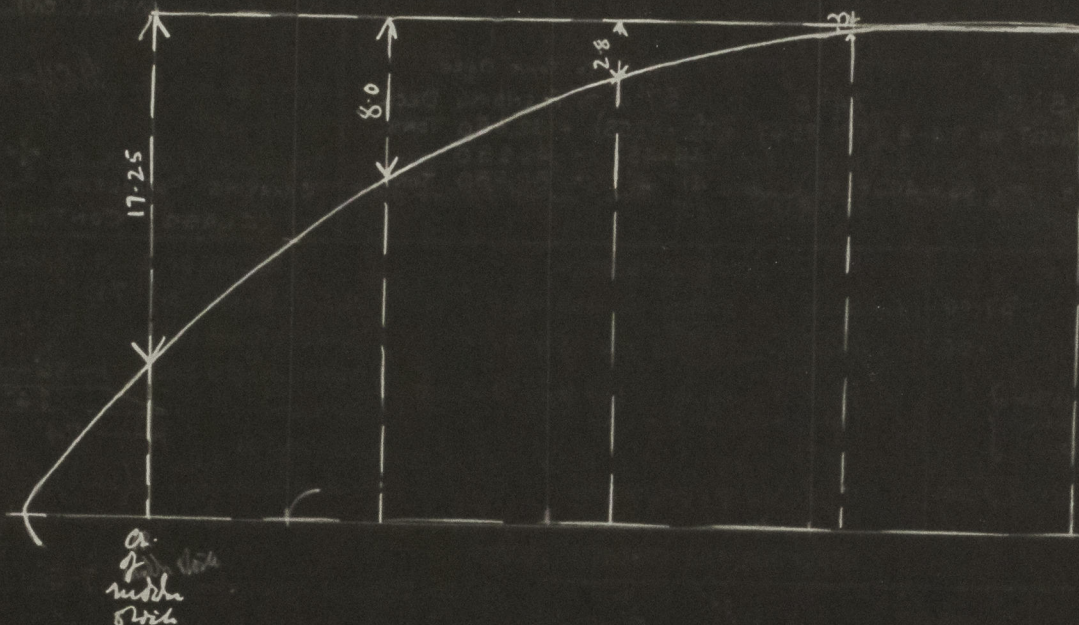
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Norhval

YARD NO 388

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.



Sliding up.

1	17.25	1	17.25
2	8.00	4	32.00
3	2.80	2	5.60
4	3.0	4	12.0
5	0	1	-

56.05

$\times \frac{1}{3} \times 28.44$

531.3 c.f.

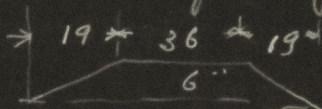
$\times 18$

9564 c.f.

Area of Deck = $535.75 \times 74 \times .85 = 33690$ s.f.

Correction for loss of buoyancy = $\frac{9564}{33690} = .284'$
= 3.41"

Cambers



Mean height = $\frac{6(36+19)}{74} = 4.46'$

Equivalent camber = $4.46 \times 15 = 6.69'$

Trade of ship WHALE - OIL FACTORY.

Names of sister ships S/S. "SOUTHERN VENTURER". FURNESS S.B.C. LTD YARD N: 387 (BRIT. CORP.)

Builder's name and yard number FURNESS S.B.C. LTD YARD N: 388.

Owners NORWEGIAN SHIPPING & TRADES MISSION.

Fee £ WILL BE CHARGED ON FIRST ENTRY REPORT.



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