

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR ~~STEAMER, SAILING SHIP,~~ TANKER)

For LONDON OFFICE ONLY

Received: **3 FEB 1957**

Index No.

Govt. Copy

Owners C11

Ship's Name "S T A N V A L E"	Official Number 157537	Nationality and Port of Registry British London	Gross Tonnage 12029	Date of Build 2,57	Port of Survey <u>Uddevalla</u> Date of Survey <u>Whilst building</u> Surveyor's Signature <u>B. H. L. J. J. J.</u> Particulars of Classification <u>100A1 Carrying Petroleum in Bulk</u>
Moulded Dimensions: Length <u>161,544</u> ✓ Breadth <u>21260</u> M ✓ Depth <u>12090</u> M ✓ Freeboard Length <u>161744</u> M (to CL of rudder stock) Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>27580</u> M ³ Coefficient of fineness for use with Tables ·780					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 12090	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B) 21260
Stringer plate 28	9.33 (12.118 - 10.783) 30 = + 334 mm	Standard Round of Beam = $\frac{B \times 12}{50} = 425$ ✓
Wood Sheathing on exposed deck	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Ship's Round of Beam = 425
$T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Difference
Depth for Freeboard (D) = <u>12118</u>		Restricted to
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \text{NIL}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed EQUIV ...	35 315	35 315	2440	-	35 315
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed EQUIV ...	12 576	12 576	2740	-	12 576
" overhang aft					
" overhang forward					
F'cle enclosed	20 514	20 514	2440	-	20 514
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	68 405	68 405			68 405

Standard Height of Superstructure 2.290 M.
 " " R.Q.D. -
 Deduction for complete superstructure 1067 mm.
 Percentage covered $\frac{S}{L} =$
 $\frac{S_1}{L} =$ } **42.29**
 $\frac{E}{L} =$
 Percentage from Table, Line A. **TANKER - 33.29**
 (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 = **1067 x .3329 = 355** mm.

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	1601	1	1601	1163	1313	1	1313
$\frac{1}{4}$ L from A.P.	711	4	2844	93	100	4	400
$\frac{2}{4}$ L "	178	2	356	0	0	2	0
Amidships	0	4	0	0	0	4	0
$\frac{3}{4}$ L from F.P.	356	2	712	43	43	2	86
$\frac{1}{4}$ L "	1423	4	5692	685	685	4	2740
F.P.	3202	1	3202	2100	2100	1	2100
Total			14407				6639

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{7768}{18} \left\{ .75 - \frac{2115}{5385} \right\} = + 232$ mm.
 If limited on account of midship superstructure. - If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft. -

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Ft.

Depth to Freeboard Deck = **39.76**
 Summer freeboard = **9.15**
 Moulded draught (d) = **30.61**
 Keel allowance =
 Extreme draught =
 Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.78 + .68}{1.36} = 1.46$ 1.36

Depth Correction **334** -
 Deduction for superstructures - **355**
 Sheer correction **232** -
 Round of Beam correction -
 Correction for Thickness of Deck amidships -
 Other corrections, scantlings, etc.

546 355 +211
 Summer Freeboard = **2798**

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

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.

Displacements and M³ per 25 m/m immersion in salt water

<u>Draught</u>	<u>Displacement (tons)</u>	<u>Immersion (M³/25mm.)</u>
75%	24300	73.6
85%	27950	75.5
95%	31690	77.2
100%	33570	78.0

Poop

$$\begin{aligned} \text{Length of side} &= 34045 \\ + \frac{2}{3} \times 1905 &= \frac{1270}{35315} \end{aligned}$$

FORECASTLE

$$\text{Length} = 20514.$$

BRIDGE

$$\begin{aligned} \text{Length at side} &= 12044 \\ + \frac{2}{3} \times 1356 &= \frac{904}{12948} \end{aligned}$$

$$\text{Corrected for breadth} = 12948 \times \frac{20,650}{21,260} = 12,576^m.$$

Sheers

$$\begin{aligned} \text{Length at side} &= 34,045. \\ \frac{1}{6}L &= \frac{26957}{7.088} \end{aligned}$$

$$\begin{aligned} \text{Actual Poop deck height} &= 2440 \text{ mm.} \\ \text{Std} \quad \quad \quad &= 2290 \text{ mm} \end{aligned}$$

$$\text{Excess} = 150 \text{ mm.}$$

$$\begin{aligned} \text{Addition to sheer @ } \frac{1}{6}L \text{ from AP} &= 150 \times \frac{7.088^2}{34.045^2} \\ &= 7 \text{ mm} \end{aligned}$$

Trade of ship International tanker

Names of ^{similar} ~~other~~ ships "Ragna Gorthon" Uddevallavarvet A-B. Yard No. 142/159

Builder's name and yard number Uddevallavarvet A-B. Yard No. 160

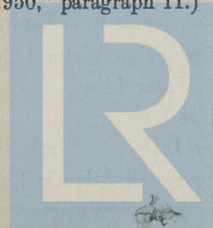
Owners J.A. Billmeir & Co., Ltd., London.

Fee £ --- : --- : ---

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

Midship section

Longitudinal section and plans



© 2020

Lloyd's Register
Foundation