

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, ~~SAILING SHIP, TANKER.~~ ^{SALVAGE VESSEL.})

Ship's Name "SALVAGE DUKE."	Official Number <i>169402</i>	Nationality and Port of Registry BRITISH GLASGOW.	Gross Tonnage APPROX 1125.14 +20	Date of Build 1943	Port of Survey GLASGOW.
Moulded Dimensions: Length 200.45' Breadth 37.45' Depth 18.03' AS MEASURED. FREEBOARD L. TO CR OF RUDDER STOCK = 201.15'				Date of Survey WHILE BUILDING.	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 2310 tons				Surveyor's Signature <i>J. Hanson.</i>	
Coefficient of fineness for use with Tables .698				Particulars of Classification 100 A1 SALVAGE VESSEL CONTEMPLATED.	

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 18.03'	(a) Where D is greater than Table depth (D - Table depth) R = $(18.06 - 13.41) \times 1.547 = +7.19$ 4.65	Moulded Breadth (B) 37.75'
Stringer plate '40"03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} =$ 9.06
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = 9"
Depth for Freeboard (D) = 18.06		Difference = .06
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.06}{4} \times .896 = +.01$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed						Standard Height of Superstructure 6.00 7.5'
" overhang						" " R.Q.D. ✓
R.Q.D. enclosed						Deduction for complete superstructure 26.12
" overhang						Percentage covered $\frac{S}{L} =$ 10.87
Bridge enclosed						" " $\frac{S_1}{L} =$ 10.40
" overhang aft						" " $\frac{E}{L} =$ 10.40
" overhang forward						Percentage from Table, Line A. 5.20
Fore enclosed	18.64.80	18.60	7.5	-	18.60	(corrected for absence of forecastle (if required))
" overhang	3.26.27	2.32			2.32	Percentage from Table, Line B. ✓
Trunk aft						(corrected for absence of forecastle (if required))
" forward						Interpolation for bridge less than 2L (if required) ✓
Tonnage opening aft						Deduction = 26.12 \times .052 = -1.36
" " forward						
Total	21.875	20.92			20.92	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	30.11	1		30.11	36.00	30.11	1		30.11	Mean actual sheer aft = 5mm
1/4 L from A.P.	13.40	4		53.60	16.06	13.40	4		53.60	Mean actual sheer forward = Deficient
1/2 L "	3.315	2		6.63	3.94	3.315	2		6.63	Mean standard sheer forward
Amidships	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships = ✓
3/4 L from F.P.	6.63	2		13.26	6.38	6.38	2		12.76	" aft of " = ✓
1/4 L "	26.80	4		107.20	25.50	25.50	4		102.00	
F.P.	60.23	1		60.23	57.00	57.00	1		57.00	
Total				271.036440					262.10	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{8.93}{18} \left(\frac{75-.0543}{2 \times 160.52} \right) = +.35$
If limited on account of midship superstructure. **✓**

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 = **18.06**
Summer freeboard = **2.48**
Moulded draught (d) = **15.58**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **3.89 = 4"**
Addition for Winter North Atlantic Freeboard (if required) = **6"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta =$ **2400**
Tons per inch immersion at summer load water line
 $T =$ **15.49**
Deduction = $\frac{\Delta}{40T}$ inches = **3.87**
= 4"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{695+.68}{1.36} = \frac{1.325}{1.36}$
Depth Correction **7.19**
Deduction for superstructures **- 1.36**
Sheer correction **.35**
Round of Beam correction **.01**
Correction for Thickness of Deck amidships **-**
Other corrections, scantlings, etc. **-**
7.55 1.36 + 6.19

Summer Freeboard = **29.75**

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

Tropical Fresh Water Line above Centre of Disc	8"	204	Tropical Fresh Water Freeboard	1-9 3/4"	552
Fresh Water Line " "	4"	102	Fresh Water " "	2-1 3/4"	654
Tropical Line " "	4"	102	Tropical " "	2-1 3/4"	654
Winter Line below " "	4"	102	Winter " "	2-9 3/4"	858
Winter North Atlantic Line " "	6"	152	Winter North Atlantic " "	2-11 3/4"	960

6992

"SALVAGE DUKE"

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.

SALVAGE VESSEL

GLASGOW

1943

1120

BRITISH

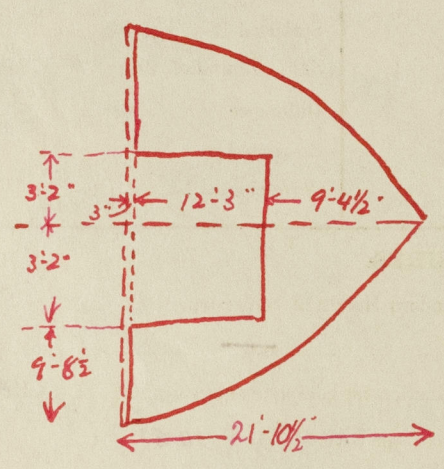
SALVAGE DUKE

GLASGOW

18-03 AS MEASURED

200-75

2310



Fee. 21.62
Run $\frac{12.25 \times 3.17}{12.87} = \frac{3.02}{18.60}$ equivlt. endland.
 $\frac{3.02}{.25} = 3.27$ equivlt. o. H.

$\frac{21.87}{20.11} = 1.087$
 $\frac{1.76}{20.11} \times .5 = .88$
 $\frac{18.60}{1.51 \times .951} = 1.44$
 $\frac{18.60 \times 1}{20.92} = .88$
2.32

1.44

Trade of ship SALVAGE VESSEL.

Names of sister ships "OCEAN SALVOR" "SALVIKING" "SALVENTURE" "SALVESTOR" "KING SALVOR"

Builder's name and yard number MESSRS W. SIMONS & CO., LTD. 763/J.1526.

Owners THE ADMIRALTY.

Fee £ 10 0 0