

30 SEP 1944

Rpt. C.14 (Comp.).

EMPIRE HARVEST
37479

Glasgow No 68862

Index. No. 37745
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

Ship's Name "EMPIRE JURA"	Official Number 169419	Nationality and Port of Registry BRITISH GLASGOW	Gross Tonnage 813	Date of Build 1944	Port of Survey GLASGOW
Moulded Dimensions: Length 190.0' Breadth 30.5' Depth 14.0'					Date of Survey WHILST BUILDING
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1386 tons					Surveyor's Signature J. W. Solwell.
Coefficient of fineness for use with Tables .703					Particulars of Classification + 100A1 "CARRYING PETROLEUM IN BULK" (CONTEMPLATED)

Depth for Freeboard (D). Moulded depth ... 14.0 Stringer plate .40"033 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ NIL Depth for Freeboard (D) = 14.033	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = $(14.03 - 12.67) \times 1.461 = +1.99$ 1.36 (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) 30.5 Standard Round of Beam = $\frac{B \times 12}{50} =$ 7.32 Ship's Round of Beam = 7 1/2 Difference .18 Restricted to ✓ Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.18^2}{4} \times .7875 = -.01$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
POOP ENCLOSED (AT SIDE)	65.82	67.36	7.5	✓	67.36
" " (AT CENTRE)	67.69				
R.Q.D. enclosed					
Bridge enclosed					
F'cle enclosed	20.71	20.71	7.0 AT BHD. 6.5 AT STEM	✓	20.71
Trunk	101.6	47.31	3.5	3.5/6.0	27.59
Tonnage opening					
Total	88.07	135.38			115.66

Standard Height of Superstructure	6.00'
" " R.Q.D.	✓
Deduction for complete superstructure	25"
Percentage covered $\frac{S}{L} =$	46.35
" " $\frac{S_1}{L} =$	71.25
" " $\frac{E}{L} =$	60.87
Percentage from Table, Line TANKER	52.96
(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 =	25 x .5296 = -13.24

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	29.00	1		29.00	28.62	28.62	1		28.62
1/2 L from A.P.	12.905	4		51.62	10.5	10.50	4		42.00
2/3 L	3.19	2		6.38	0	-	2		-
Amidships	-	4		-	0	-	4		-
2/3 L from F.P.	6.38	2		12.76	0	-	2		-
1/2 L	25.81	4		103.24	23.44	23.44	4		93.76
F.P.	59.00	1		59.00	57.5	57.50	1		57.50
Total				261.00					221.88

Mean actual sheer aft =	DEFICIENT.
Mean standard sheer aft =	
Mean actual sheer forward =	NIL.
Mean standard sheer forward =	
Length of enclosed superstructure forward of amidships =	
" " aft of " =	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{39.12}{18} \left(.75 - \frac{23.18}{58.2} \right) = +1.13$
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 = **14.03**
Summer freeboard = **.98**
Moulded draught (d) = **13.05**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **3.26 = 3 1/4"**

Addition for Winter North Atlantic Freeboard (if required) = **3.26 + 1.90 = 5.16 = 5 1/4"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 1555$
Tons per inch immersion at summer load water line
 $T = 11.37$

Deduction = $\frac{\Delta}{40T}$ inches = **3.42 = 3 1/2"**

DRAFT MLD. TOTAL DISPT. T.P.I.

11'-0" 1278 11.05
13'-0" 1548 11.37

TABULAR FREEBOARD **TANKER.** corrected for Flush Deck (if required)

Correction for coefficient	$\frac{703 + 68}{1.36} = \frac{1.383}{1.36}$	21.50
		21.86
Depth Correction	1.99	-
Deduction for superstructures	-	13.24
Sheer correction	1.13	-
Round of Beam correction	-	.01
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
	3.12	13.25
Summer Freeboard =		11.73

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Steel~~, Steel, Deck: **0'-11 3/4"**

Tropical Fresh Water Line above Centre of Disc	6 3/4"
Fresh Water Line	3 1/2"
Tropical Line	3 1/4"
Winter Line below	3 1/4"
Winter North Atlantic Line	5 1/4"

Tropical Fresh Water Freeboard	0'-5"
Fresh Water	0'-8 1/4"
Tropical	0'-8 1/2"
Winter	1'-3"
Winter North Atlantic	1'-5"

30 OCT 1944

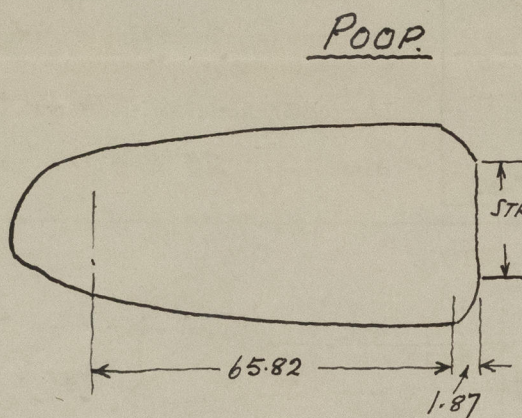
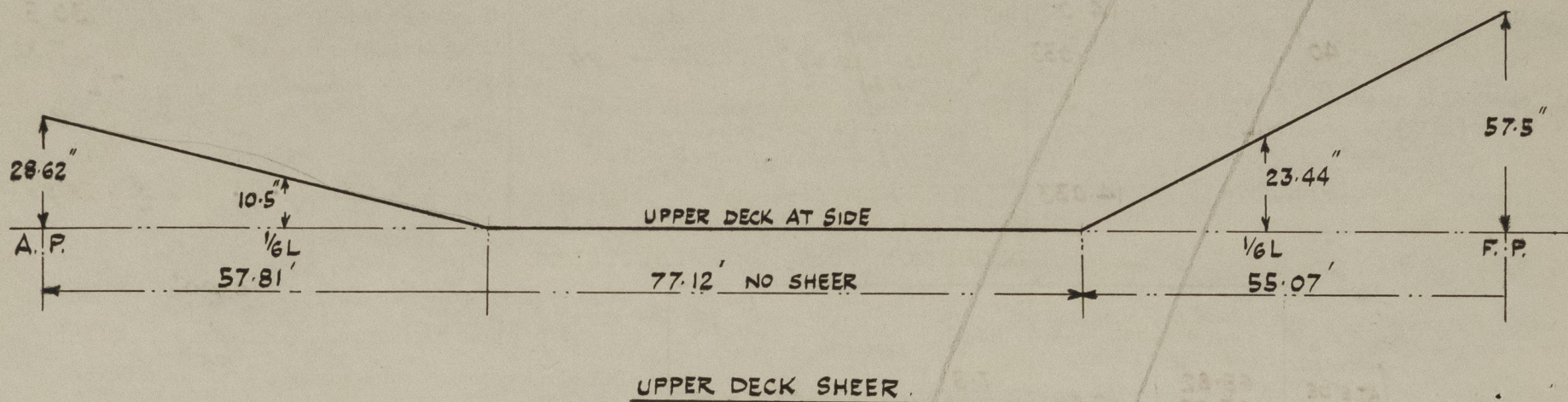
30.9.44

A.P.S.

30.9.44

7/10/44

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.



Straight portion $1.87 \times 14.25 = 26.65$
 Curved portion $2 \times \frac{2}{3} \times 1.87 \times 8.125 = 20.26$
 $\frac{46.91}{\div 30.5} = 1.54$
 $\frac{65.82}{67.36}$

TRUNK.

$\frac{101.6 - 5.6}{96.0} \times \frac{14.25}{30.50} = 44.85$
 $\frac{5.6 \times 13.375}{30.50} = \frac{2.46}{47.31}$

Trade of ship International
 "EMPIRE HARVEST" (A. & J. INGLIS, LD. N° 1225P) SEE GLASGOW REPORT N° 67904
 Names of sister ships "EMPIRE DOMBEY" (A. & J. INGLIS, LD. N° 1227P) " " " " 68570
 Builder's name and yard number Messrs. A. & J. Inglis, Ltd. N° 1282 P.
 Owners The Ministry of War Transport.

Fee £ 8-0-0
 Freeboard Required form 9 attached.



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