

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>"CHING MEN."</b>	Official Number	Nationality and Port of Registry <b>Chinese Shanghai</b>	Gross Tonnage	Date of Build <b>1947</b>	Port of Survey <b>Quebec, P.Q.</b>
Moulded Dimensions: Length <b>160'-0"</b> Breadth <b>33'-0"</b> Depth <b>17'-0" to upper deck</b>				Date of Survey <b>Whilst building.</b>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth: <b>1550</b> tons				Surveyor's Signature <b>R.D. Campbell</b>	
Coefficient of fineness for use with Tables <b>.711</b>				Particulars of Classification <b>* A1</b>	
For Service on the Yangtze River					

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <b>17.00</b>	(a) Where D is greater than Table depth (D - Table depth) R = (17.02 - 10.67) 1.230 = <b>+ 7.81"</b>	Moulded Breadth (B) <b>33.0 ft.</b>
Stringer plate ... <b>.02</b>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50}$ = <b>7.92"</b>
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <b>8"</b>
Depth for Freeboard (D) = <b>17.02</b>		Difference <b>.08"</b>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$ = <b>.08" - .02"</b>

### DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...				
" overhang ...				
R.Q.D. enclosed ...				
" overhang ...				
Bridge enclosed ...				
" overhang aft ...				
" overhang forward				
F'cle enclosed ...				
" overhang ...				
Trunk aft ...				
" forward ...				
Tonnage opening aft ...				
" " forward				
Total ...				

Standard Height of Superstructure **6.00'**

" " R.Q.D. **✓**

Deduction for complete superstructure **22.00'**

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

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

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

Percentage from Table, Line A.  
(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 = **NIL**

### SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	26.00	1	26.00	Inches 4.125	4.125	1	4.12
1/4L from A.P. ...	11.57	4	46.28	0		4	
1/4L " ...	2.86	2	5.72	0		2	
Amidships ...		4		0		4	
1/4L from F.P. ...	5.72	2	11.44	.25	0.25	2	0.50
1/4L " ...	23.14	4	92.56	7.25	7.25	4	29.00
F.P. ...	52.00	1	52.00	28.87	28.87	1	28.87
Total ...			234.00				62.49

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{171.51}{18} \times .75 = + 7.15"$

If limited on account of midship superstructure.

Mean actual sheer aft = **Deficient**

Mean actual sheer forward = **Deficient**

Length of enclosed superstructure forward of amidships =

" " aft of " = } **Flush Deck**

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient.
Depth to Freeboard Deck = <b>17.02</b>	$\Delta = 8.18$	$16.90 + 2.40 = 19.30$
Summer freeboard = <b>8.52</b>	Tons per inch immersion at summer load water line	$.68 + .711 \times 1.36 = 1.391$
Moulded draught (d) = <b>8.50</b>	$T = 10.2$	$19.30 \div 1.36 = 19.74$
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>2.125" 2"</b>	Deduction = $\frac{\Delta}{40T}$ inches = <b>2.005"</b>	
Addition for Winter North Atlantic Freeboard (if required) = <b>4" NOT ASSIGNED.</b>	<b>= 2"</b>	

Depth Correction ...	7.81	✓
Deduction for superstructures ...	✓	✓
Sheer correction ...	7.15	✓
Round of Beam correction ...	.02	✓
Correction for Thickness of Deck amidships ...	✓	✓
Other corrections, scantlings, etc. corresponding to a summer moulded draught of 8'-6"	67.57	✓
	82.53	✓
	.02	✓
	82.51	✓
Summer Freeboard =	102.25	✓

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, <b>WATER</b> Steel, Deck: <b>8'-6 1/4"</b>	
Service Freeboard	
Tropical Fresh Water Line above Centre of Disc <b>NOT ASSIGNED</b>	Tropical Fresh Water Freeboard <b>NOT ASSIGNED</b>
Fresh Water Line " <b>NOT ASSIGNED</b>	Fresh Water " <b>NOT ASSIGNED</b>
Tropical Line " <b>NOT ASSIGNED</b>	Tropical " <b>NOT ASSIGNED</b>
Winter Line below " <b>NOT ASSIGNED</b>	Winter " <b>NOT ASSIGNED</b>
Winter North Atlantic Line " <b>NOT ASSIGNED</b>	Winter North Atlantic " <b>NOT ASSIGNED</b>



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.

Intermediate Displacements and Tons per Inch.

Moulded draft	7'-6" W.L.	Extreme Displacement	689 tons.	T.P.I.	9.64.
"	8'-0" "	"	754 "	"	10.00.
"	8'-6" "	"	818 "	"	10.20.

Trade of ship..... **Service on Yangtze River.**

Names of sister ships.....

Builder's name and yard number..... **Geo. T. Davie & Sons Ltd., Hull No. 40.**

Owners..... **Ming Sung Industrial Co. Ltd.**

Fee £.....



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