

CONVENTION FREEBOARD 1930

NAME **VACUOLINE**

MOULDED DIMENSIONS 458.5 x 62.5 x 36.5

MLO DISPLACEMENT AT 85 Dm

BLOCK COEFF FOR USE WITH TABLE 782

DEPTH FOR FREEBOARD

MLO DEPTH
STRINGER
SHEATHING IN WELLS:
 $T \left(\frac{L-S}{L} \right) =$

D =

36.50
0.4

36.54

SUPERSTRUCTURES

	MEAN COVERED LENGTH S	EQUIVALENT ENCLOSED LENGTH S _i	HEIGHT	CORRECTION FOR HEIGHT	EFFECTIVE LENGTH E
POOP. ENCLOSED	117.80	117.80			117.80
OVERHANG					
R.Q.D. ENCLOSED					
OVERHANG					
BRIDGE ENCLOSED	36.00	31.32			31.32
OVERHANG AFT	2.00	6.52			6.52
FORD	4.00	2.00			2.00
FILE ENCLOSED	41.20	41.20			41.20
OVERHANG					
TRUNKS					
TONNAGE OPENING					

TOTAL 201.0 198.84 198.84
LENGTH OF SHIP, L 458.5 458.5 458.5

% COVERED = 43.84 43.84 43.37
CORRESPONDING % TABLE = 34.37, CORRECTED FOR ABSENCE OF FILE IF REQ'D =

ALLOWANCE = 42 x 34.37 = -14.44

EFFECTIVE LENGTH OF BRIDGE =
L

CORRECTION FOR LENGTH.

(a) $D > \frac{L}{15}$: $(D - \frac{L}{15}) \times R = (36.54 - 30.56) \times 3 = +17.94$

(b) $D < \frac{L}{15}$

- (i) with enclosed superstructure covering at least 6L amidships.
- (ii) with a combination of intact partial superstructures and trunk.
- (iii) with a complete trunk

$(\frac{L}{15} - D) \times R =$

If restricted by height of superstructures =

CORRECTION FOR ROUND OF BEAM.

STANDARD = 15.00

SHIP = 15.50

DIFFERENCE = .50

RESTRICTED TO

ALLOWANCE = $\frac{\text{DIFFERENCE}}{4} \times (1 - \frac{S_i}{L}) = \frac{.50}{4} \times .562 = -.07$

CORRECTION FOR SHEER

STATION	ACTUAL SHEER	STANDARD SHEER	ALLOWED SHEER	S.M	PRODUCTS
A.P. 1	48.0	55.85	48.0	1	48.0
2	26.5		26.5	4	106.0
3			11.8	2	23.6
4			2.95	4	11.8
5			5.9	2	23.6
6			23.55	4	47.1
7	53.0		53.0	4	212.0
F.P. 7	96.0	111.70	96.0	1	96.0

2418 568.1

MEAN EFFECTIVE SHEER = 23.67

STANDARD SHEER = .05L + S = 27.92

DIFFERENCE (D_f) = 4.25

ALLOWANCE = $D_f \times (.75 - \frac{S}{2L}) = 4.25 \times (.75 - \frac{2.19}{2}) = +2.26$

LENGTH ENCLOSED BRIDGE : fore of * , abaft *

IF LIMITED : OR RESTRICTED ON ACCOUNT OF SUPERSTRUCTURE =

ACTUAL SHEER AFT
STANDARD SHEER AFT

ACTUAL SHEER FORD
STANDARD SHEER FORD

TABULAR FREEBOARD (CORRECTED FOR FLUSH DECK IF NECESSARY)

77.31

CORRECTED FOR BLOCK COEFF. $\times \frac{.782 + .68}{1.36} =$

83.11

CORRECTION FOR LENGTH

" SHEER
" SUPERSTRUCTURES
" ROUND OF BEAM
" THICKNESS OF DECK

+	-
17.94	-
2.26	-
-	14.44
-	.07
-	-

20.20 14.51

14.51
5.69

+5.69 36.54

88.80 = 7.40

7.28 29.14

95.08 ÷ 4 = 7.28

FRESH WATER FREEBOARD

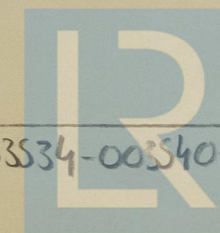
LIGHT SUMMER

SUMMER 7'-4 3/4"

WINTER 8'-0"

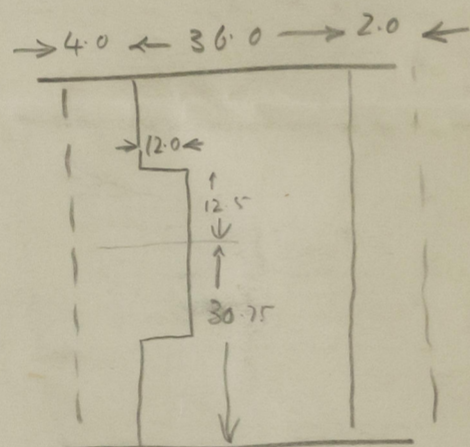
HEAVY WINTER

1208 PHM { S 8'-7 1/2"
W 9'-2 1/2" diff S W -14 3/4"
-14 1/2"



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Bridge: closed 24.0

$$\text{Side channel } \frac{12 \times 18.75}{30.75} = \frac{7.3}{31.3} \quad 2$$

$$\begin{array}{r} 12.00 \\ 7.30 \\ \hline 4.70 \\ 4.00 \\ \hline 8.70 \times \frac{3}{4} = \underline{\underline{6.52}} \end{array}$$



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