

5

AMERICAN BUREAU OF SHIPPING

Form L.L.2

FREEBOARD CALCULATION

INDEX Steamer

DATE 4-5-36

HULL NO. 422

NAME ^{SCOTIADOC} MARTIN MULLEN

L = 423'8"

TYPE Bulk Carrier

BUILDER American Ship Building Co. B = 50'0"

ERECTIONS Fcfe

OWNER Pioneer S.S. Co.

D = 28'7/8"

D₁ = 28.14'

Block Coefficient

$$\frac{32}{423.67} \times \frac{13347}{50 \times 23.86} = .844$$

Coefficient

$$\frac{.844 \times 1.36 \times 73.50}{1360} = 82.36$$

FREEBOARD DEPTH

$$\text{MOULDED D} = 28.07 =$$

$$\text{STRINGER} = .07 \frac{T(L-S)}{L} =$$

$$D_f = 28.14$$

or =

DEPTH

$$D_f = 28.14$$

$$\frac{423.67}{15} = 28.24$$

$$.10 \times 3 = .30$$

SUPERSTRUCTURE

BRIDGE

$$4'2" \text{ FORECASTLE } 46' \times \frac{4.17}{7.5} = 25.6$$

BRIDGE

POOP

$$\frac{E}{L} = \frac{25.6}{423.67} = .06$$

$$42 \times .03 = 1.26$$

$$\text{TABLE AT L } 73.50$$

$$\text{AT } .844 \quad 82.36$$

$$\text{DEPTH} \quad - .30$$

$$82.06$$

$$\text{SUPERSTRUCTURE} \quad - 1.26$$

$$\text{SHEER} \quad 80.80$$

$$9.23$$

$$\text{CAMBER} \quad 0$$

$$90.03$$

$$\text{Deficiencies}^* \quad 7.00$$

$$\text{Freeboard} \quad 97.03$$

* After deckhouse & hatches

SHEER

STANDARD

VESSEL

NO. HEIGHT ORDINATE MULT ORDINATE F(A)

A.P. .1 L + 10 1 31.13 31.13

1/6 .0445 L + 4.45 4 8.00 32.00

1/3 .011 L + 1.1 2 0 0

0 4 0 0

1/3 .022 L + 2.2 2 6.75 13.50

1/6 .089 L + 8.9 4 24.13 96.52

F.P. .2 L + 20 1 59.13 59.13

$$\frac{471.20}{232.28}$$

$$\frac{232.28}{239.02} = 13.28 \times (.75 - \frac{.109}{2}) = 9.23$$

$$\frac{239.02}{18}$$

$$8'1"$$

$$\text{T.F.} = \text{Above}$$

$$\text{F.} = \text{Above}$$

$$\text{T.} = \text{Above}$$

$$\text{I} = 5" \text{ Below}$$

$$\text{W} = 11\frac{1}{2}" \text{ Below}$$

$$\text{MOULDED D} = 28' - 7/8"$$

$$\text{STRINGER} = 7/8"$$

$$\text{WOOD DECK} =$$

$$\text{GARBOARD} = 1 - 3/4"$$

$$\text{KEEL} =$$

$$\text{LAP OR STRAP} =$$

$$\text{FREEBOARD} \quad 28'3 - 1/2"$$

$$8' - 1"$$

$$\text{EXTREME D} \quad 20'2 - 1/2"$$

$$1 - 3/4"$$

$$\text{MOULDED D} \quad 20'3/4"$$

CAMBER

$$\text{STANDARD } \frac{50 \times 12}{50} = 12$$

$$\text{VESSEL} = 12$$

$$\text{DIFFERENCE} = \frac{0}{4} = 0$$

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