

FREEBOARD CALCULATION

Nan Duang Nawa

DATE Oct 6, 1920.

HULL NO. 37	NAME J.S. "Griffith"	L = 219-10
TYPE Poop & Fcsl	BUILDER J. F. Guthrie	B = 40-0
	OWNER Jas. Griffith & Sons	D = 21-0

UNDER DECK TONNAGE	REG. BREADTH 40.1	REG. DEPTH 18.5	STD. = $\frac{40}{4} = 10$
	FRAME - .33	SHEER -.49	VESSELS CAMBER = $\frac{9.0}{2} = 4.5$ (78x12" straight piece)
1303.6	SPARRING + .33	CEILING -	$\frac{1.}{2} \times .576 = +.27$
		FALL D.B. +.12	
REG. LENGTH 219.83		CAMBER -.25	STEEL DECK $3\frac{1}{2} \times 446 = -1.56$
	40.1	18.13	

COEFF. = $\frac{1303.6 \times 100}{219.83 \times 40.1 \times 18.13} = .818$	TABLE C 3.5
CORR FOR D.B. = -.02	TABLE A 2.5 + .45 = -2.95
29 COEFF. = .80	1.0 x 446 = .45

TABLE LENGTH = 252.00	TABLE AT 21-0 & .80 51.00
VESSELS LENGTH = 219.83	4-3 1/4
TABLE A 32.17 x .12 = -3.86	3-11 3/8
TABLE C x .06 = -1.93	4-1/8
	4-3 1/2
	8 1/2
	3-7 1/2
	1/4
	3-7 1/4
	1 1/2
	3-5 3/4
	3-2 3/4
	3-2 1/2
	1 1/2 statutory
	3-4"

BOW 41.87	1/2 BOW 9.87	11.82
STERN 20.88	1/2 STERN 3.13	31.98
2 62.75	2 13.00	20.16
31.37	6.5	36
VESSELS MN SHEER = 2.35	see other side	11.81
STD. MN SHEER = 19.18		
16.83 x .25 = +4.21		

FO'C'S'LE 32.32	27.48 + $\frac{9.68}{2}$
BRIDGE -	4.84
POOP 65.75	32.32
98.07	11.6
219.83	
OR .44	COVERED 1/8" allowed
OR .28	5/8" allowed

TABLE A CORRECTED	TABLE C 19.50	17 1/2 47.14	3-11 3/8
TABLE C 19.50	17 1/8 17.57	1-5 3/8	2-5 3/4
LENGTH -1.93	17.57	29.57 x .285	-8.44

F.W. = $\frac{3510}{40 \times 18.6} = -4.71$	F.W. = 4 3/4 ABOVE	MOLDED DEPTH 2-1-0
	I.S. = 3 ABOVE	STRINGER PL.
	W. = 3 BELOW	WOOD DECK
	WNA = 5 BELOW	KEEL
		BUTT STRAP

Assigned at 3'4" below statutory deck line which is 1 1/2" above of 8 steel deck above

Sheers at ends

1	41.87	1	41.87
2	9.87	4	39.48
3		2	
4		4	
5		2	
6		4	
7		2	
8	9.13	4	12.52
9	20.88	1	20.88
			<u>114.75</u>
			14.34
			28.68
			9.56
			19.12

2.35	5.67	3.12	1.47	14
4.70	2.47	1.56	.73	12
1.56				

$$\text{Area} = \frac{129}{\left(\frac{3}{4}L\right)} = \frac{129}{164} = \frac{785}{3} = 261.67$$

0	3.13	1	3.13	✓
1	1.75	4	7.00	✓
2	1.0	2	2.0	✓
3	.5	4	2.0	✓
4	0	1	0	✓

$$14.13 \times \frac{1}{3} \times 10.04 = \frac{82.1}{129.5}$$

27.48'

22.25'

61.25'

219.23



27.48'

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Frame Lin. D=21

$$c = 1$$

$$F_{1/2} = 20$$

$$G/2 = \frac{39}{81} =$$

$$\frac{5' \text{ dia}}{2 \times 2} = \frac{5}{4} = 1.25$$

0	0	1	0	✓
1	2	3	6	✓
2	5	3	15	✓
3	10	1	10	✓
			<u>31</u>	✓

$$31 \times \frac{3}{8} \times 7.06 = 82.1$$