

**Form to Calculate Flotation: boats 2 HP or less & manually propelled Less Than 20 Ft (6 M);
Using ABYC, USCG and Metric Values**

See instructions: Input data Fields in blue in pounds, in red in Metric.

This block is for boats with a single engine

Newboatbuilders.Com

Boat: Make, Mod, Year

Length

Breadth

		Boat Weight	100
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Engine Hp

Maximum Weight Capacity = MC

Maximum persons Capacity = PC

Buoyancy of Flotation Material = B

2	Hp	1.4	Kw
753	lb	181	kg
655	lb	136	kg
60.4	lb/cu ³	1000	kg/m ³

ABYC

Table Weights Engine & Battery

ABYC Table 1a (lb)

Dry

Col 2

ABYC

USCG

Metric

22

25

10.0

USCG Table 4 (lb)

Swamped

Col 4

26

20

11.7

ABYC Table 1b (kg)

Battery

Col 8

0

0

0.0

Weights of hull and materials in the boat.

Factors K from the Table

	lb	kg	Factor K	Wt X K	Wt X K	Totals
				lb	Lb	Kg
Wh Fiberglass	0	0.00	0.33	0.0	0.0	0.0
Wh Aluminum	0	0.00	0.33	0.0	0.0	0.0
Wh1 Wood	100	34.00	-0.81	-81.0	-81.0	-27.5
Wh2 metal Fittings	0	0.00	0.88	0.0	0.0	0.0
wh3 Fasteners	0	0.00	0.88	0.0	0.0	0.0
wh4 Misc	0	0.00	0.63	0.0	0.0	0.0
Wh5 misc from Worksheet	0	0.00	1.00	0.0	0.0	0.0
Wd Deck Weight (Dry K = 1)	0	0.00	1.00	0.0	0.0	0.0
Wb Total			total	-81.0	-81.0	-27.5

Outboard Motor Weight Dry

22

25

10.0

Table 1a or Table 1b

Outboard Motor Weight Dry + Fluids

Col 3

30

0

13.7

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0

Dead Weight =

Maximum weight Capacity - Persons Capacity - Motor Controls Battery = Wdw

Wdw = Dead Weight = MC - PC - Wp If 0 or Negative Wdw = 0

98	98	0
lb	lb	kg

Fb = Amount of Flotation for Boat Weight

Fb = (Wb) / B in Cubic Feet or Cubic Meters

Cu ft	Cu Ft	Cu M
-1.34	-1.34	-0.03

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Fp = Amount of Flotation For Persons Weight (PC)

Fp For boats less than 550 lb (249.5 Kg)

PC = (0.5 x PC) + .25(Wdw) / B

Cu ft	Cu Ft	Cu M
2.71	2.71	0.03

Fm = Flotation for swamped motor = (Wp) / B

Wp = Swamped Engine Wt

0.50	0.00	0.01
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Cu ft	Cu Ft	Cu M
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Ft = Amount of Flotation in Cu Feet or Cu Meters

Ft = Ft = Fb + Fp + Fm Rounded Total

1.87	1.37	0.02
2.00	2.00	0.02