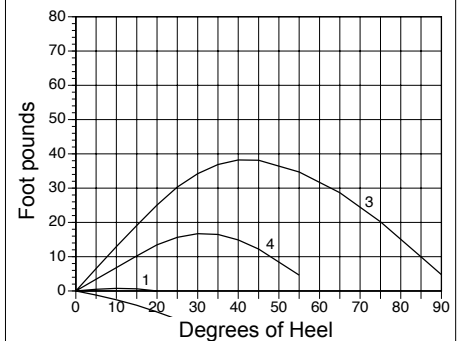


Rapier 20

by Valley Sea Kayaks

Righting/Heeling Moments (Fixed-weight)



Stability Curves

1. 150 lb. paddler, no cargo
2. 200 lb. paddler, no cargo
3. 150 lb. paddler, 100 lb. cargo
4. 200 lb. paddler, 100 lb. cargo

Paddler Weight	150 lbs	200 lbs	150 lbs	200 lbs
Cargo weight	none	none	100 lbs	100 lbs
Waterline length	19.48	19.57	19.62	19.66
Waterline beam	1.36	1.39	1.42	1.43
Draft	0.28	0.32	0.36	3.54
Prismatic coefficient	0.52	0.54	0.56	0.57
Block coefficient	0.41	0.43	0.45	0.47
Wetted surface in sq.ft.	20.40	22.33	24.11	25.82
Pounds to immerse one inch	93.53	97.45	99.89	101.51
Effective waterline length			19.62	
Volume, cu.ft.			13.24	
Center of buoyancy, % of length from bow			50.80	
Metric equivalents				
Paddler Weight	68.04 kg	90.72 kg	68.04 kg	90.72 kg
Cargo weight	none	none	45.46 kg	45.46 kg
Waterline length	5.94	5.96	5.98	5.99
Waterline beam	0.41	0.42	0.43	0.44
Draft	0.09	0.10	0.11	1.08
Prismatic coefficient	0.52	0.54	0.56	0.57
Block coefficient	0.41	0.43	0.45	0.47
Wetted surface in sq.meters	1.90	2.07	2.24	2.40
Kgs to immerse 2.54 cm	42.42	44.20	45.31	46.04
Effective waterline length			5.98	
Volume cubic meters			0.37	

Measurements	
Length overall in decimal ft	19.91
Beam in inches	17.75
Volume in cu.ft.	13.24
Cockpit width in inches	15.00
Cockpit length in inches	33.00
Coaming height forward, inches	13.62
Coaming height aft, inches	7.50
Height of seat in inches	0.88
Weight in pounds	44.00
Metric Equivalents	
Length overall in meters	6.07
Beam in meters	0.45
Volume in kiloliters	0.37
Cockpit width, cm	38.10
Cockpit length, cm	83.82
Coaming height forward, cm	34.59
Coaming height aft, cm	19.05
Height of seat, cm	2.24
Weight in kg	19.96