Statistical Comparison of Pacific Seacraft 34 to Other Cruising Boats

Below are statistical comparisons of the Pacific Seacraft 34 to some other cruising boats, using the on-line Sailcalc program. Although I would caution against giving credibility to, and over-interpreting, any single statistical indicator, the overall pattern of the comparisons does show some of the broad differences in these designs.

Pacific Seacraft 34 vs. Pacific Seacraft 37

The Pacific Seacraft 34-37 comparison confirms the 34 as the slightly smaller sibling to the 37. (The statistics based on sail area I would ignore as due to sail area inputs based on different rigs.)

LOA	Pacific Seacraft 34	34.1
	Pacific Seacraft 37	36.9
LWL	Pacific Seacraft 34	26.25
	Pacific Seacraft 37	27.75
Beam	Pacific Seacraft 34	10
	Pacific Seacraft 37	10.83
Displacement	Pacific Seacraft 34	13200
	Pacific Seacraft 37	16200
Sail Area	Pacific Seacraft 34	649
	Pacific Seacraft 37	619
Capsize Ratio	Pacific Seacraft 34	1.69
	Pacific Seacraft 37	1.71
Hull Speed	Pacific Seacraft 34	6.87
	Pacific Seacraft 37	7.06
Sail Area to Displacement	Pacific Seacraft 34	18.59
	Pacific Seacraft 37	15.47
Displacement to LWL	Pacific Seacraft 34	326
	Pacific Seacraft 37	338
LWL to Beam	Pacific Seacraft 34	2.63
	Pacific Seacraft 37	2.56
Motion Comfort	Pacific Seacraft 34	32.95
	Pacific Seacraft 37	34.11
Pounds/Inch	Pacific Seacraft 34	938
	Pacific Seacraft 37	1074

Pacific Seacraft 34 vs Valiant 32

This comparison of the Pacific Seacraft and Valiant designs shows their overall similarity. The pattern of small differences fit my interpretation of the Pacific Seacraft design as slightly more towards the traditional end of the heavy full keel / light fin keel continuum.

LOA	Pacific Seacraft 34	34.1
	Valiant 32	32.125
LWL	Pacific Seacraft 34	26.25
	Valiant 32	26
Beam	Pacific Seacraft 34	10
	Valiant 32	10.5
Displacement	Pacific Seacraft 34	13200
	Valiant 32	11800
Sail Area	Pacific Seacraft 34	649
	Valiant 32	519
Capsize Ratio	Pacific Seacraft 34	1.69
	Valiant 32	1.84
Hull Speed	Pacific Seacraft 34	6.87
	Valiant 32	6.83
Sail Area to Displacement	Pacific Seacraft 34	18.59
	Valiant 32	16.02
Displacement to LWL	Pacific Seacraft 34	326
	Valiant 32	300
LWL to Beam	Pacific Seacraft 34	2.63
	Valiant 32	2.48
Motion Comfort	Pacific Seacraft 34	32.95
	Valiant 32	28.36
Pounds/Inch	Pacific Seacraft 34	938
	Valiant 32	975

Pacific Seacraft 34 vs Wauquiez Pretorien 35

Comparing the Pacific Seacraft 34 to the Wauquiez Pretorien 35 design interests me because the Pretorien was Hal Roth's last cruising boat. Also, my cruising boat prior to the Pacific Seacraft 35 was a Wauquiez Gladiator 33, a slightly smaller sibling to the Pretorien.

The Pretorien is a higher-aspect-ratio fin keel design, compared to the elongated fin keel Pacific Seacraft and Valiant designs. The statistics below suggest the design is beamier, lighter, longer in waterline (e.g. smaller overhangs), higher form stability but lower ultimate stability, and probably less seakindly in motion.

LOA	Pacific Seacraft 34	34.1
	Pretorien 35	35.1
LWL	Pacific Seacraft 34	26.25
	Pretorien 35	30.25
Beam	Pacific Seacraft 34	10
	Pretorien 35	11.7
Displacement	Pacific Seacraft 34	13200
	Pretorien 35	13000
Sail Area	Pacific Seacraft 34	649
	Pretorien 35	538
Capsize Ratio	Pacific Seacraft 34	1.69
	Pretorien 35	1.99
Hull Speed	Pacific Seacraft 34	6.87
	Pretorien 35	7.37
Sail Area to Displacement	Pacific Seacraft 34	18.59
	Pretorien 35	15.57
Displacement to LWL	Pacific Seacraft 34	326
	Pretorien 35	210
LWL to Beam	Pacific Seacraft 34	2.63
	Pretorien 35	2.59
Motion Comfort	Pacific Seacraft 34	32.95
	Pretorien 35	23.75
Pounds/Inch	Pacific Seacraft 34	938
	Pretorien 35	1265

Pacific Seacraft 34 vs A Newer Fin-Keel Production Boat, Catalina 350

Let's compare the Pacific Seacraft 34 to a newer fin-keel production boat. I'll use the Catalina 350, but I could have used examples from other major builders, like Hunter and Beneteau.

As we probably expected, the comparisons below suggest the newer production boat is beamier, lighter, longer in waterline (e.g. smaller overhangs), higher form stability but lower ultimate stability, and probably less seakindly in motion. This design comparison is somewhat like the comparison to the Wauquiez Pretorien 35 design, but of course the build quality on the Wauquiez Pretorien was much higher than for current production boats.

LOA	Pacific Seacraft 34	34.1
	Catalina 350	35.3
LWL	Pacific Seacraft 34	26.25
	Catalina 350	31.3
Beam	Pacific Seacraft 34	10
	Catalina 350	13
Displacement	Pacific Seacraft 34	13200
	Catalina 350	13635
Sail Area	Pacific Seacraft 34	649
	Catalina 350	731
Capsize Ratio	Pacific Seacraft 34	1.69
	Catalina 350	2.18
Hull Speed	Pacific Seacraft 34	6.87
	Catalina 350	7.5
Sail Area to Displacement	Pacific Seacraft 34	18.59
	Catalina 350	20.49
Displacement to LWL	Pacific Seacraft 34	326
	Catalina 350	199
LWL to Beam	Pacific Seacraft 34	2.63
	Catalina 350	2.41
Motion Comfort	Pacific Seacraft 34	32.95
	Catalina 350	21.12
Pounds/Inch	Pacific Seacraft 34	938
	Catalina 350	1454

Pacific Seacraft 34 vs Spencer 35

Comparing the Pacific Seacraft 34 to the Spencer 35 design interests me because the Spencer 35 was Hal Roth's first cruising boat, which he used to circumnavigate the Pacific Ocean. It is a full keel boat, but not as heavily built as heavy full keel boats. The keel is shortened in front (Brewer bite?) and in back also, compared to traditional full keel boats; in fact, some sailors might even call it a fin keel boat with a keel-hung rudder.

This comparison I find instructive because it shows how close the Pacific Seacraft design appears to the later, lighter, "full keel" designs, e.g. "full keel" designs with the keel greatly shortened compared to traditional full keel designs, so much so that some sailors might even call the design a fin keel design (but with the rudder still hung off the keel), as noted above.

Below we see both boats are similar in beam, waterline, probably in form stability (similar beams) and ultimate stability (similar capsize ratios), and probably similar in seakindliness. As an aside, I have found that the Pacific Seacraft 34 heaves to on a mainsail alone, with no backed jib, and is completely stable in that configuration. This behavior is more like traditional full keel boats than like high-aspect-ratio fin keel boats, and suggests we should view the Pacific Seacraft design as close in some ways to "full keel" designs like the Spencer.

LOA	Pacific Seacraft 34	34.1
	Spencer 35 Mk1	35
LWL	Pacific Seacraft 34	26.25
	Spencer 35 Mk1	25
Beam	Pacific Seacraft 34	10
	Spencer 35 Mk1	9.6
Displacement	Pacific Seacraft 34	13200
	Spencer 35 Mk1	12000
Sail Area	Pacific Seacraft 34	649
	Spencer 35 Mk1	522
Capsize Ratio	Pacific Seacraft 34	1.69
	Spencer 35 Mk1	1.68
Hull Speed	Pacific Seacraft 34	6.87
	Spencer 35 Mk1	6.7
Sail Area to Displacement	Pacific Seacraft 34	18.59
	Spencer 35 Mk1	15.93
Displacement to LWL	Pacific Seacraft 34	326
	Spencer 35 Mk1	343
LWL to Beam	Pacific Seacraft 34	2.63
	Spencer 35 Mk1	2.6
Motion Comfort	Pacific Seacraft 34	32.95
	Spencer 35 Mk1	32.32
Pounds/Inch	Pacific Seacraft 34	938
	Spencer 35 Mk1	858