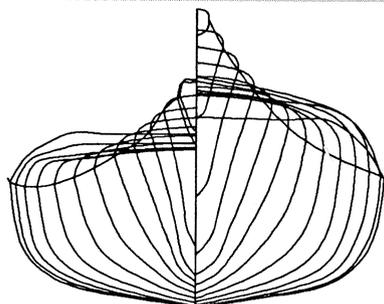
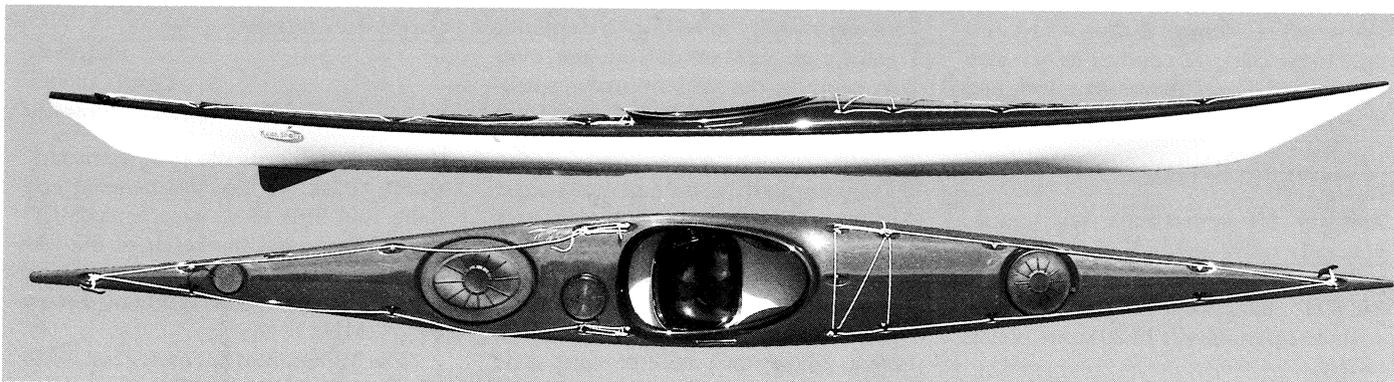


Artisan Millennium by Kajak-Sport



Length overall	18' 2 ⁷ / ₈ "
Beam	22 ¹ / ₁₆ "
Volume	13.47 cu. ft.
Cockpit size	16 ¹ / ₈ " x 28 ⁵ / ₈ "
Cockpit coaming height	
Forward	12"
Aft	9"
Height of seat	7 ⁷ / ₈ "
Weight	57 ¹ / ₄ lbs.
Center of buoyancy*	47%

*With 250-lb. load

Speed vs. Resistance

These figures are derived from mathematical models based on a limited number of towing tests on flat water.

Kayak weight + 250-lb payload

Resistance in pounds, shown to hundredths to differentiate figures formerly rounded to tenths. A fit paddler can maintain a cruising speed at 3 pounds of drag. Only a few can work against 5 pounds of drag for long distances. See August '98 page 43 for more details.

Calculated by the KAPER program by John Winters (Factor added for soft plastic hulls when applicable):

2 knots	0.92
3 knots	1.92
4 knots	3.54
4.5 knots	5.11
5 knots	7.76
6 knots	13.81

Calculated by Matt Broze using Taylor Standard Series:

2 knots	0.91
3 knots	1.92
4 knots	3.54
4.5 knots	4.82
5 knots	7.16
6 knots	13.45

Hydrostatics

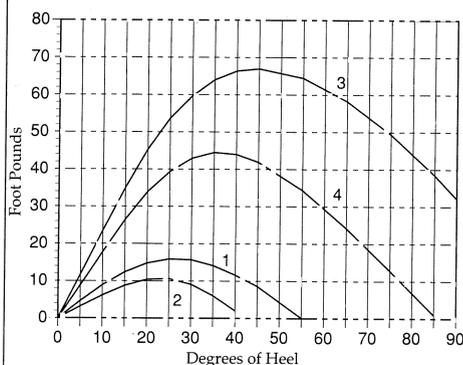
Paddler weight	150 lbs.	200 lbs.	150 lbs.	200 lbs.
Cargo weight*	none	none	100 lbs.	100 lbs.
Waterline length	15' 3.7"	15' 6.4"	15' 8.9"	15' 11.1"
Waterline beam	20.8"	21.2"	21.5"	21.7"
Draft	4.0"	4.7"	5.2"	5.8"
Prismatic coefficient	0.50	0.50	0.51	0.51
Block coefficient	0.36	0.38	0.39	0.40
Wetted surface in sq. ft.	18.23	19.91	21.51	23.0
Lbs./inch immersion	82.1	85.70	88.5	90.8

* Fixed "paddler" weight has its center of gravity located 10" above the lowest part of the seat and 10" forward

of the seat at back. The "cargo's" center of gravity coincides with the kayak's approximated center of gravity.

Calculated by Nautilus System™ computer program

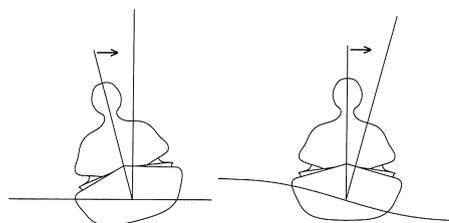
Righting/Heeling Moments (Fixed-weight)



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

Calculated by Nautilus System™ computer program



Righting Moment Heeling Moment

The same force that rights a kayak on flat water contributes to its rolling motion on the face of a wave.

Reading the Stability Curves

The steeper the slope of the curve as it rises from 0°, the higher the initial stability. Beyond the maximum righting moment at the peak of the curve, the kayak enters an unstable region of decreasing stability which does little to slow the rolling of the kayak to the point of imminent capsizing.

Note: Raising the center of gravity slightly will decrease the stability of a kayak while lowering it will increase it.

Millennium Design Statement

The new Millennium, modeled from historical Greenland styling, is designed for expedition use by paddlers of varied abilities. It has a long waterline with a light, V-shaped hull which, coupled with low wind resistance, makes it fast and light to paddle in all conditions. It is also a joy in surf. The Millennium is designed in a distinct fish form, for directional

stability, yet it offers outstanding maneuverability due to its considerable rocker. The initial stability is good and the secondary stability is excellent, assuring paddlers a smooth transition. Advanced paddlers will be delighted with its superb ability to roll upon demand.

Although lightweight, at just over fifty pounds, the Millennium is a full-volume kayak, capable of handling

most paddlers and expedition-sized loads with aplomb.

The Millennium also offers best-in-class standard features, including: state-of-the-art proprietary Kajak-Sport hatches; three bulkheads; a retractable skeg; and recessed deck fittings.

Phil Wong

Global Outfitters

US and Canadian distribution

Millennium Review Reviewers

MH 5'10", 190-pound male. 9-day cruise, generally calm; winds 5-15 m.p.h. with gusts to 25. Tide rips.

SC 5'11", 160-pound female. Day trips without cargo. Winds 15-20 knots, waves to 2 1/2'.

TE 6'1", 200-pound male. Day trips without cargo. Winds to 10 m.p.h., waves to 1'.

The Millennium has a "truly graceful appearance. It has a flawless finish with reinforcement in all the right places" (SC). The "well laid-out deck fittings, glass work and details such as the coaming and the foot pedals show careful thought" (MH). The hull-to-deck seam is glassed inside and out. "The underside of the deck has resin painted on to seal the hardware and make a smooth surface that won't snag gear bags" (TE).

The Millennium "balances well for a solo carry" (TE), but it's "a bit much for me to lift onto the car, although I could manage" (SC). The toggles tied into the end of the perimeter line made the two-person carry "quite easy" (SC).

MH liked the deck lines, but TE missed having bungies aft to help hold a spare paddle. SC thought the bungies, especially those rigged for the paddle float outrigger, were "a bit thin and susceptible to fraying." The paddle-float outrigger bungies are "threaded through plastic hooks that fasten the bungee over the blade. The distance between deck fittings is too narrow to slide a blade in sideways, so you have to use the hooks. There is a loop to release the hook, but it has the wrong angle to release it. I'd rebuild the system" (TE). The recessed deck fittings would make it easy to replace and reconfigure the deck lines.

"The cockpit opening is not long enough for me to do a seat-first entry, but the cockpit has plenty of room and good clearance for size 12 shoes" (TE). "The most comfortable fit I've had in a kayak. The coaming allows for leaning back and holds a spray deck very well" (MH).

The seat is "very comfortable" (MH) and pivots on a single bolt on either side. MH and SC wedged foam under the seat to lock it in position, but TE, although he

"initially thought it very odd," found that having both the seat and the backrest "swing with you when you lean back feels like a comfortable recliner. The seat doesn't sway laterally, and the pivoting does not impair rolling or bracing."

The backrest is "very comfortable and easy to adjust" (SC) and "provides good support without limiting my range of motion, but the hooks that secure the backrest to the coaming come loose easily" (TE).

The thigh braces are flanges molded into the coaming. "They are in a good position for comfort and a fairly positive grip even though it's a slippery glass surface. There is no foam padding, though, which isn't really needed for comfort so much as for friction" (TE). The foot braces have "large pivoting foot pads that are very comfortable and solid. The pivoting allows your ankle to take a comfortable angle and the large area prevents pressure points" (TE). The Millennium is designed to take an optional rudder, and the foot pads are designed to provide both steering and solid foot support.

"The skeg on the Millennium was a breeze to use" (SC). "Its control is easy to see and to operate. The control knob is attached to an aluminum rod, rather than flexible cable as on some other similar systems, which provides positive control without having a cable bend and buckle. Nice design" (TE).

The Millennium has "good initial and final stability. It's slightly twitchy sitting without a paddle in hand, and it doesn't provide rock-solid resistance, but it is easy to set up on edge and comfortable to hold there" (TE). SC rated both the initial and secondary stability as high.

"Loaded or empty, the kayak responds very well to edged turns, sweeping, drawing and Duffek strokes" (MH). "Without a strong lean there was a sluggish response" to turning, but with "an aggressive lean the Millennium turns on a dime" (SC).

"This boat was really built to track. Regardless of conditions, the Millennium held its course" (SC). MH never needed the skeg; the Millennium "tracked well wherever I pointed it." "With the skeg dropped it locks hard onto a course" (TE).

The Millennium's balance in the wind was "excellent. A beginner might use the skeg, which works great, but I never found

the need and kept the skeg retracted" (MH). "I had no troubles in wind and there was little to no weathercocking" (SC). "Waves get the better of the low profile" (SC). "In rough seas you'll get wet, but the bow rides nicely over most chop" (MH).

"The Millennium felt pretty fast. With a knot meter I recorded 7 knots at a flat-out sprint over a short distance and 5 1/2 knots at an exercise pace" (TE). "I've paddled faster boats, but this kayak moves effortlessly at touring speeds of 4 knots or so, and its great handling characteristics allow for higher speed in rougher water" (MH).

The Millennium "surfs wind waves well. I buried the bow on occasion, but only on some steep wakes" (MH).

The Millennium was easy to roll. "With a bit of foam for a better surface on the thigh braces it would be first rate" (TE).

"I think one could easily get away for a week-long trip. Even though it is quite shallow in its storage space, the length offers more than enough space" (SC). The tethered rubber hatches proved "watertight after repeated rolls" (TE). During a reentry, however, TE "snagged a foot on either the hatch or its tether and inadvertently peeled the hatch cover off." MH noted that the day hatch and the stern hatch coamings "came unglued from the deck. I repaired both in the field with epoxy and silicone." The three fiberglass bulkheads are glassed in place and watertight.

"I really enjoyed paddling this kayak. It is efficient to load with gear and to paddle empty or loaded. Bring the hatches up to the standards evident elsewhere in the kayak and this would be a super sea-touring kayak, a good choice for beginners or seasoned paddlers" (MH). "It was certainly made for cruising comfortably. I think the full range of paddlers would find that the Millennium meets their needs for a sea-touring kayak" (SC). "I'd do a bit of easy customizing on the deck, but otherwise there's not much I'd suggest for improvement. The hull performs well and has good turning and great speed. The accommodations are comfortable and the boat has a great look to it. Definitely on my short list" (TE). 

Design Response

We at Kajak-Sport are impressed by the thorough review, and concur with the comments regarding our latest creation, the Artisan Millennium. We are delighted that the testers' independent experience affirmed all the design and performance characteristics of the Millennium.

The hatch incidents are news to us! We have never encountered either phenomena over the past decade of production and rigorous testing. Kajak-Sport hatches are state-of-the-art and most coveted in the industry worldwide. We are

absolutely confident that all of our kayaks are capable of withstanding even unusually rough handling. Regarding the partially unglued rims, our own post-mortem testing failed to duplicate the same outcome. Thus, we suspect that the damage may have occurred during shipping from Finland to Seattle. Regarding the loose day hatch during reentry, we will monitor it carefully for repeated occurrences and, if warranted, we will tether the hatch inside the kayak instead.

We agree that the paddle-float outrigger system is unusual, but it is an ingenious setup. It is designed for one-

hand operation during and after reentry; the trick is to position the loops under the hooks, thus facilitating a smooth release. However, we are receptive to redesigning it if it proves widely unpopular.

In conclusion, we are pleased that our daunting task of creating an exceptionally versatile sea touring kayak that is suitable for a wide range of paddlers has succeeded with flying colors. Since its April debut in the U.S., everyone who has had the pleasure of paddling the Millennium has apparently put it on their short list!

Phil Wong
Global Outfitters

Options and Pricing

Designed: 1999

Standard Lay-up: Fiberglass and Diolene, hand laid. Extra bow and stern reinforcements. Butt-joined and edge-seamed inside and out with fiberglass.

Standard Features: Four proprietary Kajak-Sport hatches (a 9.5" round front hatch, a 16.5" x 12" oval rear hatch, a 6" round day hatch, and a unique 4" round skeg-inspection hatch); three fiberglass bulkheads; recessed deck fittings (no exposed metal parts); full perimeter deck lines; keyhole cockpit; adjustable ergonomic seat with deluxe backrest; retractable skeg with no-kink skeg control; proprietary Kajak-Sport pivoting plywood foot braces (designed for independent directional control of optional rudder) mounted on Keepers; and outfitting for easy installation (and removal) of optional rudder kit.

Options: Take-apart hull (two or three sections); removable rudder kit; small or large cockpits; extra strength for deck and/or hull; extra fiberglass bulkheads; recessed compass and/or pump; and metallic deck colors.

Approximate Weight: 51 pounds

Price: \$2,495

Availability: The exclusive importer and distributor for the United States and Canada is Global Outfitters, Inc., 50 Moffat Road, Newton, MA 02468. Call or e-mail GOI for the nearest dealer. Phone: (617) 834-5623. E-mail: GOKajak@aol.com

Manufacturer's Address: Kajak-Sport Oy, Mäntykankaantie 2, Fin-27100 Eurajoki, Finland.