

T-1600

by TRAK Kayaks

As seen in
Sea Kayaker
 Magazine
www.seakayakermag.com

The T-1600 is designed to combine adaptability, portability, durability and performance into a single kayak. We introduced a hydraulic system inside the cockpit enabling the shape of the hull along the entire keel to be optimized for changing water and conditions, from rivers and lakes to oceans. The keel can be lengthened with the hydraulics from the cockpit varying between no rocker and up to five inches for easy turning. The gunwales can be lengthened or shortened independently to arc the boat on the lateral plane, to trim for crosswinds and to eliminate the need for a rudder. The design requirements mandated having a fast and intuitive assembly process. The cockpit has a padded rigid (adjustable) seat system and adjustable thigh braces. The flat rib profile offers maximum internal capacity, and the aft deck sliding system provides easy access to storage. The T-1600 is a multiday, medium-volume touring boat. It comes equipped with a wheeled travel pack and a custom neoprene spray skirt for watertight access to the hydraulic system.

—The TRAK Kayaks Design Team

REVIEWERS

SR: 5' 11", 155-pound male. Day paddles, winds to 20 knots, wind waves to 2+ feet. No cargo.

GL: 5' 11", 165-pound male. Day paddles, winds to 25 knots, wind waves to 3 feet. No cargo.

TW: 6' 1", 180-pound male. Day paddle, winds to 5 knots, small waves and boat wakes to 2 feet. No cargo.

Length overall	16' 4 1/4"
Beam	22 3/8"
Volume	12.1 cu. ft.
Cockpit size	15 3/4" x 30 3/4"
Cockpit coaming height	
Forward	10"
Aft	9"
Height of seat	1 5/8"
Weight	51 1/2 lbs.

THE REVIEW

First Glance

The T-1600 from TRAK is a folding kayak with an adjustable frame that allows paddlers to change the shape of the hull. The keel and gunwales are fitted with hydraulic pistons that extend to tension the skin. The pistons work independently and can change the rocker of the kayak or curve it laterally. The spray skirt provided with the T-1600 has slots in the spray deck to give access to the levers while underway. Our reviewers managed to get the boat together in 20 to 40 minutes. TRAK claims an assembly time of 10 minutes, and "with some practice you will likely be able to make that true" (SR). Stretched tight, the "skin of the T-1600 was very clean and smooth without any flaws or blemishes" (TW). The hull fabric "appears as bomber as a white-water raft, and the deck seals to the coaming quite well" (SR).

GL found carrying the T-1600 "easy," and it was "not too heavy or hard on the shoulder—a little lighter than most folders or even fiberglass boats with similar dimensions" (SR). For TW, it "was not particularly comfortable to carry; the cockpit coaming dug into my shoulder, and the kayak didn't balance that well."

"A sturdy perimeter line is perfect for grabbing during rescue practice or rafting up. For holding items on the deck, there are stout shock cords that pass through fittings sewn into the skin" (TW).

Fit

GL and SR noted that the cockpit opening was long enough for a seat-first entry. "The peaked foredeck doesn't interfere with strokes, but the back deck is fairly high" (SR). "The moderately contoured, padded seat is comfortable, and the padded backrest has good support. The seat supports left plenty of hip room; adding an inch or two of foam is feasible" (GL) and "would help lock the paddler in" (SR). The thigh braces built into the coaming are a big plus and an aid to rolling and bracing. They need padding for comfort, but they worked very well" (GL). The foot braces were "solid and easy to adjust on shore or while underway" (TW).

Stability and Maneuverability

For TW, the T-1600 "did not feel particularly tippy nor did it feel overly stable. I felt very secure in it." SR rated the initial stability as "wobbly—secondary is much better and it was easy to hold the boat on edge with the coaming partially sub-



merged.” GL noted “the initial stability was moderate, and secondary stability was very good. It’s a pretty secure feel and would be better with a tighter, customized fit.”

“Steering the T-1600 was an interesting experience. Changing the rocker of the kayak by increasing or decreasing the tension in the keel definitely changed the handling characteristics. Overall, the T-1600 responded well to edging and carved smooth arcing turns. Initially, it was challenging to determine an equal amount of tension on both sides of the kayak to ensure straight tracking. Once adjusted and true, it was a relatively simple matter to add tension to one side, changing the shape of the hull, and initiate a constant turn. This worked perfectly for offsetting weathercocking” (TW). GL noted the T-1600 “tracks very well. By pumping the side levers, the bow drops down, increasing the waterline length for a faster, stiff-tracking kayak.” “With the rocker up at the extreme point, the boat still manages to track well but veers a little. If I added a bow or stern rudder or a sweep stroke, turning was quite easy in this mode. It doesn’t hold a tight turn even with a strong lean—it feels like it slides over the water rather than biting into it—but with a paddle assist, it turns very quickly and effectively” (SR).

The T-1600 is “reasonably well balanced for wind, depending on the adjustment of the frame. With both gunwales extended, I had difficulty turning the kayak downwind even with trying to time the sweep strokes with the tops of waves. When I released one side (or both), I could turn the T-1600 with confidence upwind and down even in 25-knot winds. The kayak tends to flex and ride over waves for a pretty dry ride. There’s not much up front to create any splash” (GL).

Speed

The T-1600 “accelerates well and feels

BEST FEATURES

- Frame adjustability
- Smooth skin

TO IMPROVE

- Adjusting to make hull straight

light and quick. I could cruise comfortably at just below 4 knots, then push it to above 5 or more. It does start to plow at higher speeds” (SR). TW held “a comfortable touring pace without significant effort. It was pleasantly swift, allowing me to keep pace with another kayaker.”

“Surfing two-foot and the occasional three-foot wind waves is where the pronounced rocker shines. The T-1600 was very easy to steer once on the wave” (SR). “Surfing the T-1600 on a small ship wake was fun. The shallow V bottom planed on one side or the other nicely, and the T-1600’s nimble characteristics made staying on the wave fun. When empty, its light weight and swift acceleration made catching waves easy” (TW).

Roll and Rescue

“Wet exits are easy. With the boat drained, it’s easy to climb onto the back deck and perform a cowboy reentry and paddle-float rescues. I used three float bags, but a sea sock is a must if paddling in conditions that may require rolls or rescues. With the kayak full of water, they become nearly impossible” (SR). The T-1600 is “fairly easy to roll. The thigh braces help a lot, and the seat doesn’t move much. The coaming is too high for laybacks” (GL).

Cruising

The T-1600’s “storage volume is enough for a week or so. The stern slider opens up the deck to allow bulky items. The bow lacks an access port, but it doesn’t really need one. A thin, pointy bag with



The hydraulics’ hand levers curve and lock to the aluminum frame members to avoid snagging. Small toggles on the aft end release the pressure to contract the piston.

a line attached for retrieval can be shoved up into the bow” (GL).

The Bottom Line

The T-1600 “will raise the bar in the foldable boat market. They hit the mark in boat handling for the most part and completely hit it in portability, construction and appearance. It will be a great boat to travel with where you know the conditions will be easily managed by the paddler’s skill level. I would not recommend this boat for paddlers that frequent tidal races, surf zones or the harsh conditions of the open ocean coast. This boat is quite fun and easy to paddle. Beginning boaters may be spooked by the twitchy initial stability but should be able to get used to that quickly” (SR). “A boat-in-a-bag with intriguing features. It’s easy to assemble, fairly light and not difficult to roll. This kayak is bound to find advocates in the ‘pack it and paddle anywhere’ community” (GL). “I love the combination of innovation and simple, traditional lines. A great option for city dwellers with limited space or travelers who want to fly their kayaks” (TW).

MANUFACTURER’S RESPONSE

Thanks for the positive review of the T-1600. We’re excited that your team had such a great experience with our kayak. The 10-minute assembly time is quite achievable with a little practice. (A video on our website shows it done in less than six minutes.) Even though the TRAK kayak is intuitive enough to assemble without instructions, we do recommend following along with the DVD and photo guide on your first assembly. The T-1600 comes equipped with two float bags and has an optional sea sock. For additional flotation, we will soon be launching a gear/float bag, which can be secured to the frame. We’ve also added padding to the thigh braces.

While we understand that the computer modeling *Sea Kayaker* does for the review is a resource-intensive process even when limited

to a single set of variables, we believe the true performance capabilities of the TRAK kayak were not fully captured by measuring the boat with the rocker set at only one setting in the middle of its range of adjustment. Our performance advantage comes with having two extreme hull shapes—one for speed and one for turning. However, for the in-water tests, the kayak proved to be fast, yet agile when required, demonstrating that the TRAK hydraulic technology provides significant paddling advantages. Yes, the T-1600 has found advocates in the pack-and-paddle world, but we’re also rapidly gaining paddling enthusiasts who desire performance, versatility, portability and fun on the water.

—The TRAK Kayaks Design Team

T-1600
MANUFACTURING DATA

Designed: 2007

Standard construction: PolyTRAK expedition-grade shell/anodized aerospace frame

Standard features: Tri-active Performance System (hydraulics), custom neoprene spray skirt, OGIO-designed wheeled travel pack, adjustable thigh braces, adjustable foot braces, float bags, adjustable seat

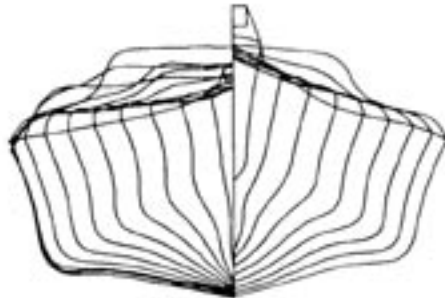
Options: sea sock

Weight: 47 lbs. (weight in pack: 58 lbs.)

Price: \$5,575 (30-day money back guarantee, five-year warranty)

Availability: See website for dealer network and direct sales

Manufacturer: TRAK Kayaks, 888-35-KAYAK; sales@RethinkKayak.com; www.RethinkKayak.com



SPEED VS. RESISTANCE

Resistance in pounds.

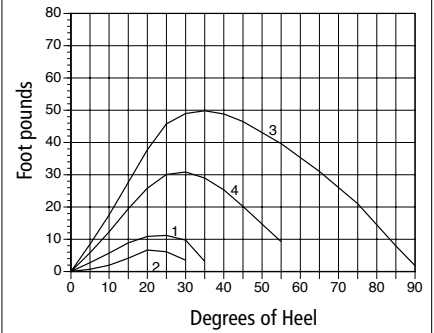
Speed	Winters/KAPER	Broze/Taylor
2 knots	0.99	0.96
3 knots	2.12	2.07
4 knots	3.92	3.83
4.5 knots	5.70	5.47
5 knots	8.50	8.38
6 knots	14.77	15.20

HYDROSTATICS

(with hull set to medium rocker)

Waterline length	15' 3.5"
Waterline beam	20.4"
Draft	5.5"
Prismatic coefficient	0.50
Wetted surface in sq. ft.	23.00
Center of buoyancy	51%

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

TECH TALK

Readers interested in the full set of hydrostatics can find them posted on our website at www.seakayakermag.com along with additional data. An explanation of the terms and procedures used in the kayak test program is also available on the site.