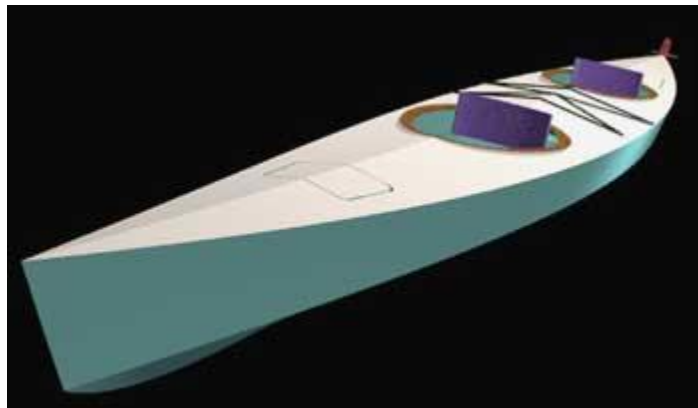


The designer (Evan Gatehouse) started sea kayaking at the age of 16, and has paddled on several multi-week paddling expeditions. He has paddled in many double sea kayaks and has a lot of experience of what characteristics make a good sea kayak.

Specifications:		
LOA:	20'-9 1/2 "	6.35 m
Max. Beam:	30 "	76 cm
Bare hull weight:	61 lbs.	28 kg
Material:	Stitch & Glue	

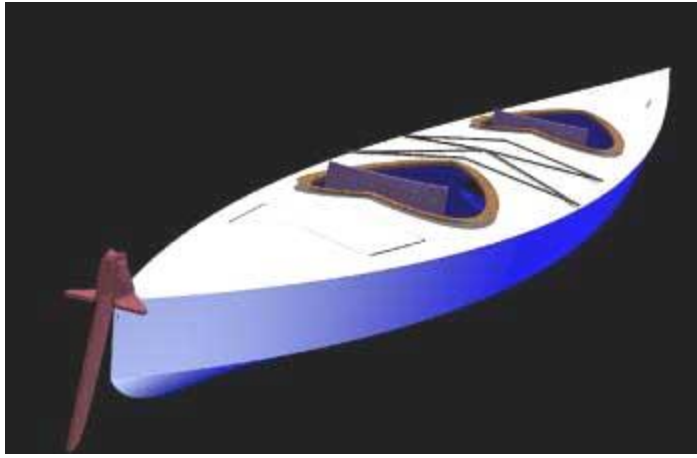
Building method:

This boat features an inverted V shaped foredeck, similar to the Orca 17, which sheds water quickly and keeps your lap dry. In calm weather you won't need a sprayskirt if you're in the back cockpit. The forward cockpit will always be more likely to take a splash so wear a sprayskirt there. The moderately high bow provides buoyancy in steep waves but is not so high that it be blown sideways in beam winds. This boat has a shallow V hull which provides good initial stability and quickly feels comfortable for beginners.

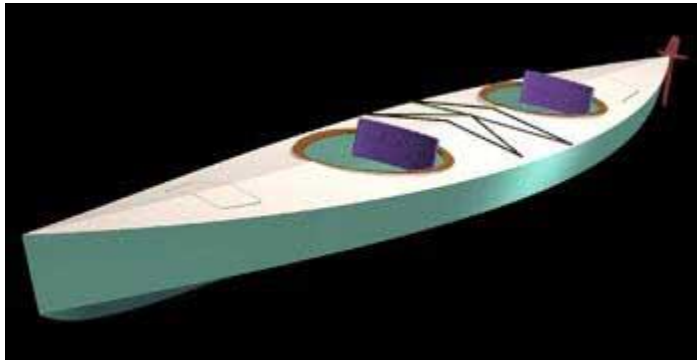


A double sea kayak is faster than a single kayak by about 1 knot for similar shaped kayaks. Where your cruising speed on a single is around 3 knots, that can jump to 4 knots in a double. Your resistance increases when you have a larger double kayak, but it doesn't go up as quickly - with double the paddle power you have a faster boat. Or you can simply take it a bit easier if you're paddling in a group with slower single kayaks.

Double sea kayaks are great for wilderness expeditions. If one of the partners is injured or sick, a fit kayaker can paddle a double in most conditions with the disabled kayaker in the bow seat. Doubles are very useful if you have one strong paddler and one weaker one (a typical couple). If you're in 2 singles, the slower paddler will always be trying to keep up, and the stronger one will feel they have to reduce their pace.



This model can also be built as a triple kayak. The middle cockpit is a great place for a child, small adult, or the family dog. If the middle person is paddling, then you have to maintain the same pace or the paddles will clash. This model is designed for day trips with your family, weekend paddles, or extended expedition touring. It will carry enough gear for upwards of a month at a time. You will be more limited by the available volume of the items you carry rather than the weight.



Required Skills:

While not difficult to build, we recommend the Orca to builders who have completed at least one other stitch and glue project. Our Cheap Canoe is an excellent introduction to our building method and the plans are free. The Orca uses thin 4mm (3/16") plywood and lighter fiberglass than larger boats.

No woodworking skills or special tools are required.

Options:

Hull plywood should be 4 mm (3/16").

Outside hull fiberglass is specified on the plans. Deck fiberglass is an option.

There are options for a fixed skeg, retracting skeg, or purchased rudder. Builders can add a forward storage compartment and hatch or keep the bow open to the cockpit. Plans also include details for building your own paddle.

Bill Of Materials:

(Excerpts from our BOM)

The BOM list materials based on our standard layout and includes a 15% waste factor for resin and fiberglass. For plywood, we use standard sheets 4' x 8' (122 x 244 cm). Please read the building notes and see the plans for detailed specifications.

We recommend marine plywood, Meranti or Okoume for this boat. Okoume is lighter but more expensive. Marine fir or quality exterior with no voids is acceptable but may cost more if you want to avoid checking. To keep fir from checking, you will need to cover the entire surface with a layer of epoxy/fiberglass. This of course adds weight, cost, and time.

Outside hull fiberglassing will require 6 yards for the hull and an extra 4 yards for the deck (optional), 4 or 6 oz. fabric.

listed in the BOM table below are small battens used as a sheer clamp and other edges.

Plywood 4x8' (122x244cm)		
3/16" (4mm)	5	or 6 mm
Fiberglass (totals)		
Woven tape	75 yards	70 m
Woven fabric	6 yards	5 m
Resin		
Epoxy, total	1.5 gallons	6 liters

Not

Cost:

The cost of materials varies depending on your location, your choice of epoxy brand, plywood type and options. Use our Bill Of Materials with the local cost of materials or add our kits cost.

All materials are available for purchase online from the web sites below:

Epoxy, fiberglass, foam, paint and more: BoatBuilderCentral.com

Plywood: [Plywood store at E-Boat.](#)

Despite the cost of shipping, those materials may cost less online than purchased locally.

Labor:

The estimated construction time is 40 hours.

More:

Visit our message board, help pages, tutorial pages and read our FAQ: most questions are answered there.

Plans Packing List:

- Detailed drawings, large scale with all dimensions required to cut the sides, bottom and the deck from flat plywood sheets: no lofting, no templates required. Paddles drawings included.
- Building notes including a detailed description of the assembly sequence and building tips
- A Bill Of Materials
- Help files reference list and more.

Read more information about our [plans packages here.](#)