PEDAYAK

made by

L'AQUAPHILE

WATER LOVER & WATER POWER

FREQUENTLY ASKED QUESTIONS

1. You say that **PEDAYAK** is a concentrate of innovations, but what are theses innovations compared to the Hobie, Native, or other hands-free kayaks that have recently arrived on the market?

Indeed**, PEDAYAK** has several major innovations compared to its competitors:

- The propeller propulsion with a direct shaft line drive with maximum efficiency.
- The 2 side keels under the hull protect the propeller and rudder perfectly and allow **PEDAYAK** to beach. They also add stability and act as a drift for a future sail version.
- The steering system with a rudder located just behind the propeller that "picks up" the back-propelled flows of water, the tiller with a control stick located just under the hand, easy and precise, which can be installed on the right or left according to preferences.
- The side tubes are used as handles to ensure a good fit for the user, but also to fix a lot of accessories: fishing rod holders, bags and pockets, sounder.
- The **PEDAYAK DUO**, i. e. a catamaran of 2 **PEDAYAK** thanks to a structure screwed on each hull. This assembly is done in 5 minutes

2. What is the advantage of a propeller propulsion over other hands-free systems such as flaps or oscillating planes?

The current propellers are designed with a very elaborate specific profile, like aircraft wings. They have a high efficiency and therefore allow higher performance than other propulsion systems. In addition, they also allow you to reverse by back-pedalling.
In addition, a propeller has a continuous rotation motion that is much more efficient than a back and forth motion with loss effects at the limits of motion.

3. Why is **PEDAYAK** 50% faster than an ordinary kayak ?

Because:
The propeller is much more efficient than the paddle.
The thigh muscle is much more powerful than the arm muscle.

Without going into complicated technical explanations, an ordinary kayak moves forward on the reaction to a stroke of paddle sending a certain volume of water on the back. **PEDAYAK** moves forward on the bearing capacity of the propeller blade profile, like an aircraft wing, much more than on the rearward propulsion of a water mass.

4. On the photos, the seat is fixed at an obtuse angle. Can the seat position be adjusted to a right angle for fishing?

This seat inclination corresponds to an optimal and ergonomic pedaling position. The one that allows the greatest comfort and speed.
For fishing, if you want a more upright position, for example, you can change the position of the back by adjusting the backrest on the harness backrest.

5. Can the seat position be adjusted according to the user's size?

The seat as such is not adjustable: We think it doesn't need to be.
However, the distance between the seat and pedals can be adjusted in several ways:

- Sliding more or less into the seat (from the buttock to bottom on the rear position to buttock on forward)
- By using the adjustable harness backrest
- By slipping a mere boat cushion in its back, available to all shipchandlers

Thus, all the tests confirmed a comfortable pedaling position for people with a size between 1.45 and 1.95m.

6. Other kayaks with current pedal propulsion cannot "beach" because they risk breaking the propeller or rudder. On **PEDAYAK** how does it work? Can the propeller or rudder be broken?

A striking innovation of **PEDAYAK** is that it is equipped with 2 side keels to protect the propeller and rudder perfectly.
You can get to the beach at full speed without damaging anything.
You can drag **PEDAYAK** on the beach pulling only its front handle without any damage. It's designed for that.

7. If the propeller breaks, is it possible to change it?

Simply unscrew a bolt to change the propeller. The company supplies replacement propellers, like all other spare parts.

8. Can we go backwards?

Reverse-pedaling, or pedaling in the opposite direction to the "normal" direction of pedaling, activates the propeller directly in the opposite direction and allows to go back. when reverse pedaling, the "propeller pitch effect" also allows precise and efficient manoeuvring, especially when reverse pedaling and rudder orientation are combined.
That being said, the propeller is designed to be efficient in forward course, **PEDAYAK** is much faster when going forward than in reverse.

9. Is it heavy or cumbersome ?

PEDAYAK weighs 35 kg. This is about the weight of a normal kayak of equivalent size.
PEDAYAK measures 3.60 m and can easily be placed on a car roof rack by two people.

10. Could a sail also be used?

PEDAYAK will soon have a specific sail allowing a real propulsion, making optional the pedaling. Its 2 keels make "drift" (actually anti-drift plans), and allow **PEDAYAK** to sail under all wind speeds, and to go upwind.

11. Can the algae and seaweeds sometimes present prevent the propeller from turning?

The weeds pass through the propeller without hanging on it.
Any anomaly on the propeller feels through the sensations of pedaling, and performance.
If an unidentified object is still attached to the propeller, stop pedaling and then reverse pedaling. It will be driven out.

12. Can disabled people, especially those with hemiplegia, use **PEDAYAK** ?

Yes. People with disabilities have kindly participated in various trials.
A small adaptation is necessary: By attaching a neoprene boot to the pedal, allowing the foot to remain attached to the pedal, they can use the device perfectly, even if they cannot pedal on a suitable road bike. **PEDAYAK** does not require any balance or minimum speed, and the pedalling is very gentle.

13. Can we surf the waves with **PEDAYAK** ?

Yes. Its relatively flat hull, its speed and manoeuvrability allow it to position itself right on the wave and give the impulse to take it. That said, **PEDAYAK** is not a surf, it is not recommended to use it on big wave spots and in places where surfers are numerous. The goal is rather to surf small waves away from the concentration of surfers.