## **Storage and Transportation of Peinert Boats**

There are several acceptable ways to store and transport your Peinert, but you must be careful not to excessively stress the boat in areas where it is not reinforced. These instructions will outline the acceptable ways to store and transport your boat, as well as the potential hazards and common mistakes people make during storage and transportation.

To understand how to safely load your boat, first you must understand the anatomy of the boat itself. The boat is made up of a few main parts:

- The shell consists of the hull and the deck, making up the skin of the boat
- The washbox the gunwale that surrounds the cockpit of the boat
- The frame very strong, but only runs part way down the boat

These parts are critical in determining the correct way to load your boat.

In general, the shell is very strong but it is not designed to support the boat's weight on a single point. The shell is especially strong where it is reinforced by the frame, and it can easily support the boat's weight along the frame. The frame runs down the centerline of the boat from the stern end of the fin to the midpoint between the washbox and the bow; it is connected to the deck and hull along this length. The bow end of the frame can be located by looking for a small but visible bump near the middle of the bow deck. Both ends of the frame can be felt through the deck. Below is a sketch to help you visualize the frame inside the boat. The frame is denoted by diagonal lines in the cross sections of the boat.



You can see in cross sections 2 and 6 that the shell is self supported beyond the end of the frame. As such, we recommend that you never support the boat beyond the ends of the frame. It is acceptable to support the boat with the shell anywhere that the shell is supported by the frame. This means that you can support the boat along the centerline of the shell from the stern end of the fin to the washbox and from the washbox to the midpoint between the washbox and the bow. The washbox itself is very strong and can easily support the weight of the boat.

The Zephyr is slightly different from other Peinert boats in that it has a frame which runs from bow to stern, which makes it exceptionally strong. The Zephyr also lacks a washbox, but the sides of the cockpit are just as strong as the washbox of one of the racing boats and can easily support the Zephyr's weight.

Now that we have highlighted the points of the boat designed for loading, we can get into the methods of storing and transporting your boat.

1. Washbox loading:

The washbox on Peinert boats is very strong and is good for supporting the boat. Simply support the boat on the washbox making sure that the boat is properly balanced. The balance point of the boat is a few inches forward of the rigger. The only downside to this method is that the bow and stern have long, unsupported overhangs.

2. Deck loading:

It is acceptable to load your boat with the bow and stern decks resting on supports on opposite ends of the washbox. The supports must be between the bow and stern ends of the frame, as discussed above. It is critical in this method that the frame of the boat remains perpendicular to the supports. If the boat rolls even slightly it will put stress on the point where the edge of the frame contacts the support and may lead to cracks in the deck. The image below illustrates this rolling and where cracks could form.



## 3. Three-point loading:

This is the preferred method for loading a Peinert boat. In this method one support rests near one end of the washbox and the other support rests along the centerline of the opposite deck (e.g. one support near the bow end of the washbox and the other on the stern deck). The support on the deck must be between the bow and stern ends of the frame, as discussed above. This method ensures that the boat is well supported in two strong locations, and it ensures that the boat cannot roll, eliminating the issues discussed above with deck loading.

4. Sling loading:

Sling loading follows similar guidelines to deck loading. The boat should be placed upside down in the slings, with the slings positioned between the bow and stern ends of the frame. The boat should not be placed right side up in slings for transport as this configuration is unstable, though it may be placed right side up in slings when working on the boat.

As mentioned above, the Zephyr has a different construction from Peinert racing boats (Peinert 26, X25, and Dolphin). Because the Zephyr is not designed for competition, it does not have the same weight constraints as the other boats. This means that it can have a more robust shell and a frame that runs the length of the boat. Zephyr owners should still follow the guidelines outlined here, but the boat will withstand more abuse than the others.

A few final notes on storage and transportation of your Peinert:

- It is always preferable to transport and store the boat upside down (with the deck facing down)
- For all loading methods where the boat is placed directly on a hard surface, it is recommended that you place the boat on a small amount of padding
- You should always avoid squeezing the shell of the boat where it is not supported by the frame.
- It is important when mounting a boat directly to supports that they are parallel, because uneven supports could cause the boat to develop a twist which may become irreversible with time
- Kayak carriers are not recommended because they have proven to be incapable of matching the curve of the boat, which leaves it sitting on the hard spot at the heel of the support

We hope that these instructions will help you store and transport your boat safely and easily.