

**Ideas. What if...**

✓ ...we put a rowing boat on hydrofoils?! Khaled Sanad, Head men's rowing coach .of Colgate University, USA kindly sent us information about using a hydrofoil in canoeing. He said that a single canoe with the hydrofoil can go as fast as rowing eight! (i.e. about 30% faster)



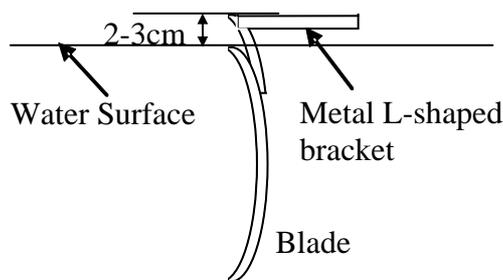
Rowing in a boat with hydrofoils can be used as a speed drill (RBN 2001/4), instead of towing with speed boat. This sort of speed drill can be used more easily, more often and in locations, where speed boats are not allowed (race courses). Ideally, using a hydrofoil would be as easy as using a brake (eg a bungee). Rowers could quickly attach a pair of temporary hydrofoils in the middle of a training session, do their speed work, and then detach them and row normally.

Obviously, there are a lot of question marks and practical problems to be solved. The main problem is a difference in the height of the boat relative to the water. Rowing is much more sensitive to this parameter than canoeing. However, the height can be set a little lower for this drill and the difference can be acceptable for good rowing.

We estimate that a men's' eight could achieve 8m/s speed (4:10 per 2000m) with hydrofoils. Also, the hydrofoil will force rowing power to be higher than a certain threshold. Below the threshold the boat would run much slower in water-displacement mode and the hydrofoil would work as a brake. This could create very interesting training methods with variable force/velocity emphasis.

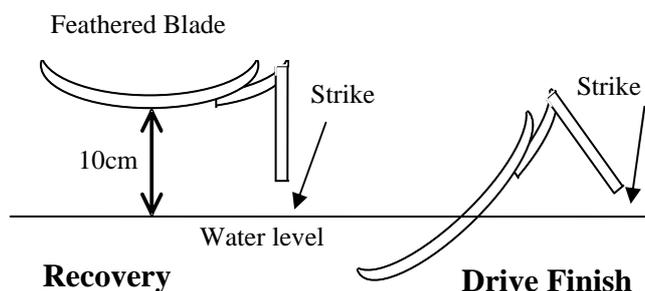
✓ ...there is another gadget from Khaled Sanad, which he picked up from Steve Tucker the L2x. The gadget can be made from a piece of light L-shaped bracket attached to the blade as shown below.

The main purpose of the gadget is controlling of the depth of the blade during the drive. Rowers have to pull the blade through the water keeping the L-shaped bracket out of water. Otherwise, they'll have problems with extracting the blade out of water.



Also, Khaled wrote: "When you row with the metal L's, they will teach you to carry your blades higher on the recovery. This higher carry will help you later on when you row in rough water because the higher carry will allow your blades to more easily clear the wave caps.

Another advantage of rowing with the metal L's is that they will teach you to extract your blade on the square and not wash-out at the finish. If you try to feather the blade before it is completely clear of the water, the metal-L will catch the surface of the water as the blade is rotated. It will be caught on the surface and you'll feel it in the handle. It will make rowing miserable and force you to learn to extract the blades on the square and then feather in order to row comfortably."



The L-shaped brackets can be made out of 1-2mm thin aluminum sheet. Cut a strap about 20-30cm long and 15cm wide; bend it square along the centerline; shape one side with pliers and attach it to the blade with double-sided tape.

Contact us if you require further information about either of these two gadgets. We would greatly appreciate your feedback about:

- Have you used these or other gadgets? How?
- What benefits or drawback did you find with these or other gadgets?
- What other problems in rowing technique are important and require a closer look?

**Contact Us:**

✉ ©2005 Dr. Valery Kleshnev, EIS/Biomechanics  
tel. +44 (0) 8707 590 417, mob: +44 (0) 7768 481 119  
e-mail: [kleval@btinternet.com](mailto:kleval@btinternet.com)