

Lendal Modified Crank Shafts explained

It seems that you can hardly throw a rock anymore without hitting somebody who is paddling with a bent shaft, but not all bent shafts are the same. Lendal's Modified Crank Shaft offers significant performance benefits over other types. The key to the Modified Crank's advantages is the "caster effect" in which the blade is actually stabilised in the stroke. The diagram shows the principle involved: By positioning the grip ahead of the blade, the blade is forced to follow the grip through the stroke, much like the wheel on a grocery cart.

Ergonomics

Bent shafts all share a corrective grip angle. The purpose is to allow the paddler to reach forward whilst minimising the sideways bending on the wrist, which can lead to repetitive strain injuries. But the Modified Crank takes this even further. Because the crank design provides a stabilising effect, it not only reduces bending, but also allows for the lowest possible grip force—perhaps an even greater benefit in preventing injury. This is why the Modified Crank Shaft is the best choice for people with physical impairments such as neurological deterioration and Multiple Sclerosis, for whom the ability to make efficient, effective strokes with little or no grip force is highly beneficial. Anyone suffering wrist pain should try a Modified Crank, and in this case, it is very important to remember that not all bent shafts will provide similar benefits.

Performance

In order to achieve best performance, a paddle blade must move through the water at the correct "angle of attack" so that the water moves over it as the designer intended. The modified crank allows the blade to automatically register its ideal angle of attack, so every stroke is powerful and efficient. If you imagine how sloppy your technique gets after 6 hours of hard paddling, you will begin to appreciate the benefit. Whilst your companions are as exhausted as you, their deteriorating technique leads them into a downward spiral of inefficiency (poor technique is inefficient and tiring, leading to worse technique, and so forth). At the same time, your Modified Crank paddle allows you to continue to make strokes that, whilst they are shorter due to your fatigue, are still efficient, so you can get the most from the energy you have left.