

Nov 2018 – Feedback

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# INDOOR SCULLER

## Rowperfect



## Power Strokes

Several studies have indicated the importance of peak handle force as an indicator of potential for fast rowing; the question of course is how best to improve it, what training methods work best and, more importantly, what methods work safely. Power cleans, heavy squats and so on are common off-water training standards. Many of us have done them, and most of us have either been injured doing them or know someone who has. It's fair to say there's no 100% safe method of training for peak strength - but doing power strokes in the boat or on the Rowperfect are arguably two very good options, with a few provisos:

1. Very good technique (preferably under the eye of a good coach) is essential. Bad rowing is equivalent to doing a heavy power clean awkwardly. It's blatantly obvious to me that lifting heavy weights properly requires a lot of teaching input, and I believe the same applies to full power rowing.
2. Reduced reps is essential in my opinion - if we're doing maximal efforts, 10-15 strokes done 10-12 times is plenty. Steve Redgrave famously said that the strongest man in the world can only do ten of his absolute strongest strokes. Given his record I'd say he's a reasonably good authority; others might point out that doing higher numbers at slightly lower intensity has worked for them, and that's fine, so long as the technique holds up as fatigue sets in.
3. In-boat power strokes with only half the crew rowing put a lot more strain on the lower back of those actually rowing - the mass of the resting rowers results in a massive change in the dynamic of the stroke especially at the finish when their extra mass suddenly acts to pull on the active rowers' feet and thus transfer shear and compression to the spinal disks, almost as badly as a fixed head ergometer does. To explain: the mass attached to each rower's feet goes from around 17kg per rower to (17kg+average weight of each resting rower) so in a mens' crew averaging 85kg it becomes 102kg: a massive (sixfold/600%) variation. So: far better to do power strokes with the entire crew and a drag mechanism rather than half rowing, half resting

One advantage of the Rowperfect over crew power strokes can be the balancing seat which makes it almost impossible to row without equally loading both sides of the spine, whereas in a boat there can easily be some unexpected dips and twists, especially when the other rowers are pulling at their absolute limit.

Back in 1992 I had the good fortune to attend a talk organised by Harald Jahrling, given by the great German sculler Thomas Lange who had just won his second Olympic Gold Medal in the single scull. At the conclusion of the talk Thomas was asked whether he thought strength or endurance were more important in what is obviously a strength/endurance sport. He replied unhesitatingly "Strength". His superb coordination also played a major role of course, but he was too modest to point that out. A few days later Thomas, Harald Jahrling and Harald's son Rob joined me for a memorable winter surfboat row at South Curl Curl - so four rowers who eventually achieved lifetime totals of total of four gold, one silver and one bronze Olympic medals in the boat, of which I contributed.....ok, none:-). We did end up upside down at one point, with a little of Thomas' blood mixed in the Pacific; happily not too much, and I can report he took it with a massive laugh.

To be clear: I don't claim to know for absolute certain what is the single best option for training strength; but I do really enjoy power strokes on our machine. They're a very time effective workout - twenty minutes total including a good warmup - and it's one workout for which I definitely advocate using the monitor to measure output *so long as technique is strictly controlled*. I think strength is an often-neglected area, especially by older rowers. I've been doing them twice a week, and I've noticed a definite change in my "feeling" of being dynamic in the boat. Whether that's real or imagined might be a fair question...

**Important news: While it is certainly possible to do maximal pressure strokes on the current machines, we are well advanced on a specific Power Stroke outer cover for the fan housing. The aim is to increase maximal drag around 10% above the current maximum. Yes, it will be retrofittable to previous models**



EXERCISING  
MAKES ME  
HAPPY

## **Feedback:**

### **1. RP Users Weekly Rowing Program - John Gray**

John Gray is a semi-retired engineer (I'm not convinced engineers ever really retire, but that's an argument for another day). John has been a great supporter of our machine and a regular respondent to newsletters. He recently told me he's now rowing better than he was 10 years ago thanks to the "auto-coaching" effect of his Indoor Sculler, and he's generously shared his weekly training program. In typical engineer fashion he's analysed things pretty well, mixing hard wattage numbers with his own well-researched understanding of physiological limitations, and I think it's a very good program:

John: I've updated my weekly Rowperfect program as follows. This was largely to economize a little bit on time and I was finding that the third of 3 X 40 minutes was too hard maintain my target due to fatigue.

Current program:

**1.**

40 minutes total. 2 minutes rating 24

2 minutes rating 26

45 seconds rating 28 and

15 seconds rating 35 followed by

5 minutes rating 18-20 light/firm

The above is repeated 4 times

The target is to maintain an average wattage by the end of 195.

## **2.**

30 minutes total. 2 minutes rating 24

2 minutes rating 26

45 seconds rating 28 and

15 seconds rating 35 followed by

5 minutes rating 18-20 light/firm

The above is repeated 3 times

The target is to maintain an average wattage at the end of 200.

## **3.**

20 minutes total. 2 minutes rating 24

2 minutes rating 26

45 seconds rating 28 and

15 seconds rating 35 followed by

5 minutes rating 18-20 light/firm

The above is repeated 2 times

The target is to maintain an average wattage at the end of 205.

At the moment I am doing this program without too much difficulty and around 5 watts average to spare for each session which will hopefully help me maintain this program until I am 80.

## **2. HIIT Training & Rowing**

Iain Edwards has been another regular respondent and supporter - he's also a former top rugby coach, and a great fan of High Intensity Interval Training. Iain was advocating heart rate monitoring long before it was common, more than thirty years ago when I played "subbies" (sub-district) rugby between rowing seasons at Colleagues Rugby Club (he had previously coached Sydney University First Grade). Iain sent through the link below to a NY Times article - definitely worth a read.

<https://well.blogs.nytimes.com/2012/02/15/how-1-minute-intervals-can-improve-our-health/>



## Rowperfect Footstraps - A Testimonial

It can be a little exasperating seeing rowers insist on using - or even adding! - a top strap to the Indoor Sculler's footplates.

On a fixed ergometer it's effectively impossible to row without a strap holding the top of the foot - otherwise the rower rockets backwards at the end of the stroke. As a result, many rowers think that's essential in a boat, or on our machine. Nothing could be further from the truth. In fact it's a great way to ruin your rowing experience, perhaps for years. We've gone to great lengths to keep straps rather than plastic click-in "shoes" on the Indoor Sculler. Besides being better and safer, they teach users to row smoothly and safely - they also allow people who have slightly different foot sizes or shin lengths (far more common than you may think) to make small adjustments for comfort, rather than compulsory 1.25cm jumps in heel height. Straps may take a minute to get used to, but the benefits last a lifetime.

I'm indebted to Mike Hawkins for the following story about a group of rowers he's currently coaching in Western Australia; he perfectly describes exactly why it's essential to use the heels, not the toe straps, to learn to row well (and more importantly enjoyably!!):

*Last night I put a group of social rowers on the Rowperfect. For months and months I've been telling them to pull the boat towards them during recovery by pulling the backs of their heels against the heel cups. Because the strap system on the Rowperfect required them to use their heels that way, the penny dropped and they put it to effect on the quad which they took out after getting off the machine. They all noticed how much better and how more relaxed their row was as a result. I didn't ask them - they spontaneously spoke about it when they came ashore.*

Thanks Mike!!

## **Music:**

There's a lot of great music still being made, but recently I've listened to Midnight Oil's ***Essential Oils*** a lot. It's a double album of live recordings. Both discs are great but Disc 1 seems to recapture the memory of some memorable concerts from my youth.

Midnight Oil are still going strong, literally still full of power and passion - if you ever get the chance, buy tickets to a concert. Meanwhile, if you want to know what it was like to see them live in the early 80's, say on the lawn in front of USyd's main building.....buy the album.

**All the best, enjoy your rowing!**

**Mark (Campbell)**

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**Regards and all the best from  
the Rowperfect "crew"!**

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