

Manufacturer: Shimano
Model: 7801-SL (Dura Ace)
Year: 2007
Front/Rear: Front
Mileage: 0 km (new)

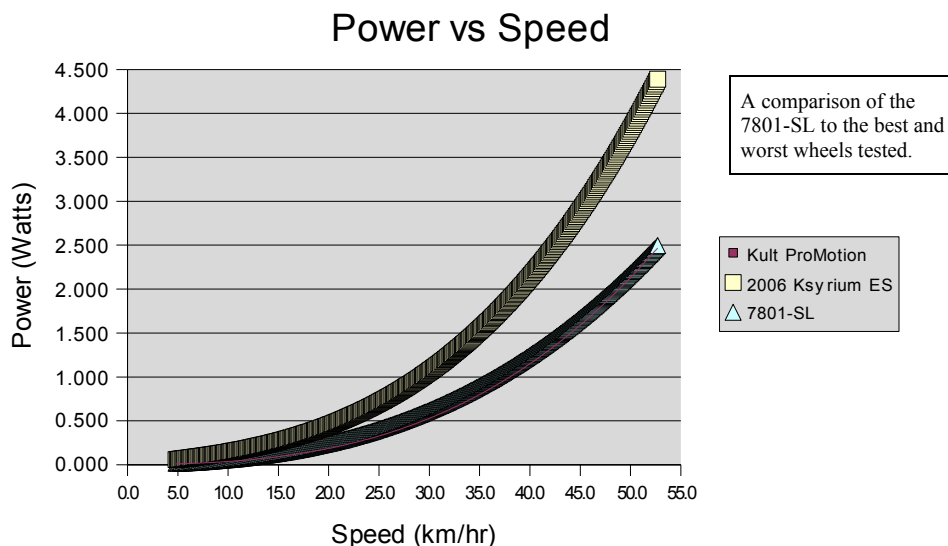
The wheel below has undergone a test which measures rotational aerodynamics, bearing performance and moment of inertia. This is done by spinning the wheel and continuously measuring the speed as it slows down. If we plot drag (negative acceleration) versus speed, it forms a graph with a particular shape. It's the shape of this graph that gives us the values for aerodynamic and bearing drag. Those values are:

a, b: These numbers are the measure of bearing performance. As these numbers increase, so will the drag due to bearing friction.

c: This is the aerodynamic drag. Since the power lost due to aerodynamic drag increases with speed cubed, ω^3 , it's important to get this right.

I: This number is the moment of inertia and indicates how difficult it is to spin up a wheel.

	<u>RESULTS</u>	Numbers from the rest of the wheels I've tested.		
		<u>Lowest</u>	<u>Highest</u>	<u>Average</u>
a ($\times 10^{-3}$) =	1.80	0.77	13.6	6.34
b ($\times 10^{-4}$) =	4.81	0.99	9.64	4.03
c ($\times 10^{-5}$) =	1.80	1.49	4.33	2.92
I (kgm^2) =	0.034	0.034	0.060	0.044



Notes: This wheel has average bearing performance with lower than average seal drag. The moment of inertia is incredibly low and so is the aerodynamic drag. As you can see in the graph, it nearly matches the best wheel I have tested – the Kult ProMotion. The 7801-SL is a beautiful wheel that has been engineered to perform at the highest levels.