POWER-PED

Premium Hybrid Electric Bicycles

The Power Ped v's Road Bike Shoot Out
1 in 20 Hill Climb E-Bike Challenge
Dandenong Ranges Melbourne

The Story

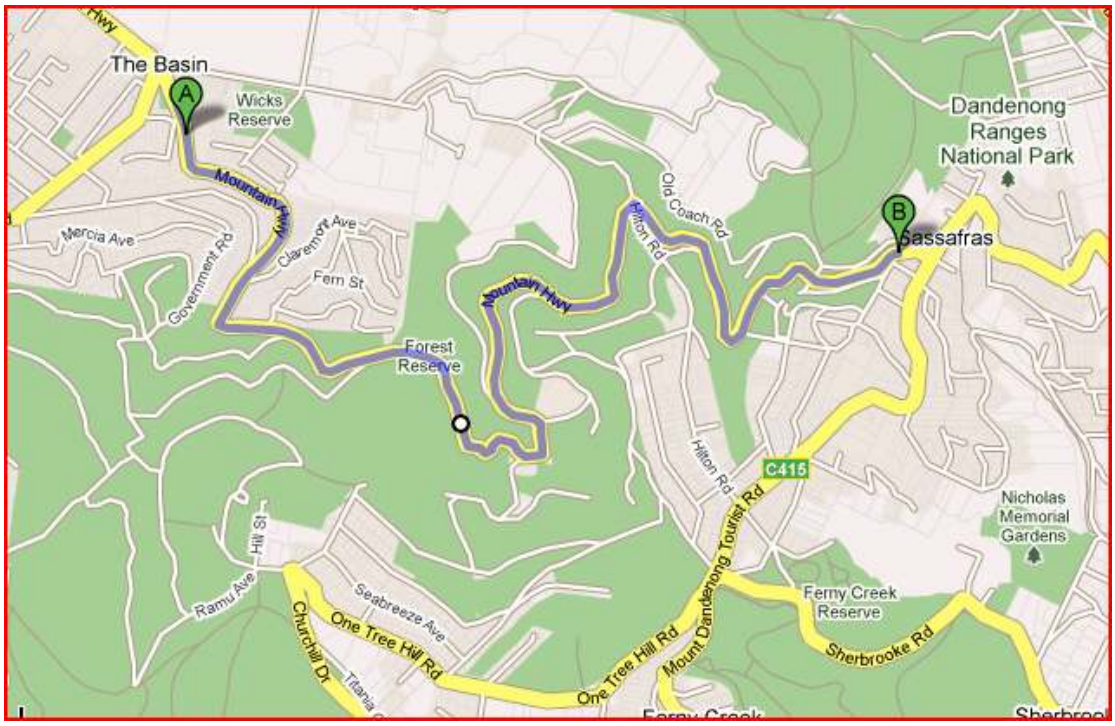
On Tuesday the 18th of August 2009 the team from Power Ped Premium Electric Bicycles set out to test our products on one of the most famous cyclist training roads in Melbourne. We wanted to test how a Power Ped EVO Conversion Kit would stack up against a well trained cyclist using a high performance Trek road bike. We would test this using a standard off the shelf bicycle available in most bike shops but fitted with our famous EVO conversion kit.

However as it turned out another twist was added to this test at the last minute, our cameraman agreed to also be part of the trial and what a trial it was. I addition we had a low fitness level, mature rider using a standard Power Ped Tracker Electric Bicycle over the same given course to compare.

The objective was to see how significant a difference the Power Ped 200 watt rated power EVO Conversion kit and a 200 watt Power Ped Tracker/EMTB Electric bike stacked up against a trained cyclist on high end road bike.

The results will amaze you!

The course. A 6.75km course with 1in 20 or near constant 5% grade from The Basin to Sassafras in the Dandenong Ranges near Melbourne. It climbs a verticle 280 meters over this distance. Starting altitude is 190 meters and finishing altitude is 467 meters. This road is used by many training cyclists every day. The scenic but challenging ride follows a twisty well surfaced mountain road that winds its way through ancient tree ferns and tall mountain ash timber. It is often regarded as a benchmark for measuring an athlete's performance in sprint hill climbing. Cycle races are often staged on this course. So we thought it would be a great platform for our test.
To put times into perspective, an elite A-grade or International standard athlete could achieve 13-15 minutes or 27-30km/h ave speed. Very fit trained competitive athletes 16-20 mins, Trained regular riders 20-22min. Casual riders 22-30min.



1/20 Hill Climb

Australian Government
Australian Sports Commission
NATIONAL TALENT ID AND DEVELOPMENT

This hill climb is officially designated by the NTID Cycling Program

Distance: 6.75km | 4.19mi

Attempts: 1625

Elevation Profile

Directions

Mountain Highway @ The Basin - Mountain Highway @ Sassafras

Start Point: 60Km Speed Signs @ The Basin Shops, Where the Bitumen Changes, stationary

End point: 60Km Speed Signs @ Sassafras, 200metres Before Bowling Green.

The Riders

Steve Brown, Vic aged 55, 69kg, fit regular cyclist, President of the Middle Distance Cycling Club, Rides very regularly through the Dandenong ranges, rides usually between 150-300km per week. Steve will do the ride outfitted in full Lycra cycle gear and clip less road pedals and shoes.

Mike Rubbo NSW, Aged 70, 80kg, self confessed low fitness level, 2 years ago had a heart condition requiring a stent to be inserted into one of his arteries, regular E-Bike User, Documentary Movie Maker. Since owning a Power Ped Tracker/EMTB Hybrid Electric Bicycle Mike has ridden 3000km on it and lost 12kg. Mike will do the ride with no special cycle gear, wear regular casual clothing and standard shoes and no clip less pedals.

Mike by the way had not intended to ride this day, he was here just for the photo shoot and comparison of the Trek v's Kit so bare that in mind.. Having driven the course he was very nervous about being able to complete it successfully. Mike is heavier and much less fit than Steve plus quite nervous about attempting this.

The Bikes

Trek Carbon Fibre Road Bike, 9 kg, fitted with clip less pedals.

Kona - Hybrid/Flat Bar Road bike 24 speed fitted with a standard current model Power Ped EVO 200watt rated power conversion kit and lithium Polymer 37v 14aH Battery. 19kg inc the conversion kit.

Power Ped Tracker /EMTB - Electric bicycle with (PAS) Pedal assist and 200 watt rated output brushless geared electric motor. 23kg

The Test

Conditions: 15c, clear winters day.

Test 1: Steve Brown to ride the Trek Road bike the full 6.5km course as hard as he could go as the base time.

Test 2: Then ride the Kona fitted with the Power Ped EVO Lithium Conversion kit after a rest, muffin and a coffee again as fast as he could manage over the same course. Timed.

Test 3: Mike Rubbo to ride the same course on the Power Ped Tracker/EMTB Hybrid Electric Bicycle, timed.

The Action- Steve on the Kona with EVO Kit

Video shoot

Mike on the EMTB/Tracker

Steve on the Trek

Other training cyclists on the road during our test

Getting ready for the Video Shoot

The Results!

Test 1: Steve Brown on Trek Carbon Fibre Road Bike – **20 min 25 seconds @ ave speed 19.5 km/h**

Test 2: Steve Brown on Kona Hybrid with EVO Kit Fitted – **15min 35 seconds 5 minutes faster!!!!!! @ ave speed 26.26km/h**

Test 3: Mike Rubbo on The Power Ped EMTB Tracker, remember 70 years old and not fit. – **18mins 32 seconds @ave speed 22.43 km/h 2 min faster that Steve on the Trek!!!**

The Conclusion

The results from this test PROVE beyond doubt that the performance of a well specified quality electric bicycle such as the Power Ped Tracker or a Power Ped EVO conversion kit makes a massive difference to the performance of the rider. The power assist functionality of the Power Ped Hybrid Electric Bicycle products when used with a riders own pedal power delivers outstanding results. The fact our test subject, Steve Brown could better his time by 5minutes on a heavier bike after having ridden the course hill 40mins earlier proves the conversion kit can increase your potential performance by well over 40%. The other key outcome is the

incredible result from Mike, at 80kg and a low level of fitness he absolutely blitzed the course beating Steve's time on the Trek by nearly 2 min. The performance of our standard Power Ped Tracker bike delivered in spades for this test proving anyone can have a benefit from a Power Ped hybrid electric bicycle.

Key Points

- Proves that even a low fitness rider CAN compete with a trained cyclist by using an electric bicycle.

- Allows riders to use a bike where they otherwise would not consider riding one because they perceived it was too hard or beyond their capability

- Allows more people to cycle than ever before.

- Electric Bikes are now highly functional and no longer carry the stigma of heavy clunky scooter styled products of the past

- Power Ped Power Assisted Bicycles have huge health benefits for users. Obesity, diabetes, cardio conditions all benefit from low impact aerobic exercise.

- Proves that existing regular bikes sold through bike shops can be effectively converted into a really functional electric bike product.

- Allows spouses or friends to ride with higher level riders. Socially highly beneficial.

- Commute to work in standard casual clothing without working up a sweat.

Power Ped Hybrid Electric Bicycles have a wide range of product applications from Conversion Kits to Step through bikes and foldable electric bikes. They all use the same motor and battery configurations depicted in this test. A video of the test is available on our website or via You Tube. A DVD version is also available by request.

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