

Cougar Power Assisted Handcycles

Transform your wheelchair in seconds



Introduction

Cougar Power Assisted handcycles with fully adjustable pedelec Twin Drive are quick release wheelchair attachments designed to fit the majority of **rigid frame wheelchairs** and will transform your wheelchair into a brilliant sleek and sporty electric assist handcycle.

Team Hybrid has designed Cougar to make life easier and more pleasant for hand-cyclists. When you purchase a Team Hybrid handcycle you are investing in your future health, fun and overall well being.

Cougar pedelec twin drive combines pedal assist and throttle operation and will transform the way that you use your wheelchair.

Cougar power assisted handcycles are fun and exhilarating, they can be used for recreation or commuting and are a great way to get your aerobic exercise. The benefits of cycling to health, physical conditioning and quality of life are many and include improved muscle strength and improved stamina.

Cycling with Cougar will also improve your circulation and respiratory functions through active exercise, burn up calories for weight control and weight loss and promote relationships with friends and family.

Pedelec twin drive will enhance your riding experience giving you a comfortable ride, allow you to go faster, and extend your range.

Power on Demand (POD):

This feature is activated using the thumb throttle. The motor delivers immediate power to the wheel when the throttle is activated. POD overrides the pedal assist sensor. This is of great benefit when gear selection is inappropriate: the rider is at a junction or hill climbing.

Pedal Assist Sensor (PAS):

The pedal assist sensor is mounted on the bottom bracket and provides crank speed information to the motor. The motor will not activate until PAS is activated. A magnet ring is mounted onto the sprocket and when the cranks are rotated the magnets passing the PAS activate assistance. Electrical assistance is felt as soon as the rider starts peddling, power delivery is modulated via the handle bar mounted console.

Pedelec twin drive electric assistance can be felt as soon as the rider starts pedaling. Cougar can be operated with or without the pedelec twin drive and it is possible to instantly switch from manual to power assist. Twin drive assistance can be used continuously although in order to conserve battery power it is good practice to anticipate gear changes when approaching an incline and to use assistance only when extra power is needed.





Batteries

Compact, Lightweight and Long Lasting: Our 36V Lithium-ion battery weighs only 2.5kg. The 18650 Panasonic cells used in our batteries are widely known to be the finest available.

Protected by a battery management system, the batteries provide a great combination of energy density and cycle life, allowing you to achieve more miles per charge and minimize customer returns.

Highly Reliable: The battery management technology protects packs from heat, voltage imbalance, under-voltage and over-current. The BMS (Battery Management System) dramatically improves cycle life and prevents battery fires and explosions. All Li-ion cells benefit from precise battery and pack management technology.

Li-ion battery packs with a capacity exceeding 300Wh are classified as Hazardous Material – Hazmat Class 9 and will not be allowed on aircraft. Our standard Cougar battery is over the 300Wh threshold. We can supply 8Ah 288Wh batteries if you intend to fly with your handcycle.

Please check with the airline you intend to fly with before purchasing an 8Ah 288Wh battery as some airlines will only accept batteries with a capacity of 4.5Ah 160Wh. We do not sell batteries with a capacity under 8Ah 288Wh.



Docking System

Cougar power assisted handcycles can connect to most rigid wheelchairs via a docking system that is permanently mounted under the wheelchair. It is lightweight and adds approximately one kilogram to the weight of the chair.

The rear of the docking system is clamped to either the back axle or a tube going across the back of the chair. The front of the docking tube mounts to the crossbar underneath the seat canvas towards the front of the chair.

Our handcycles are designed to fit to most rigid frame wheelchairs. They cannot be fitted to folding chairs.

Fatigue Testing

Our docking system has succeeded in passing vigorous fatigue trials, this included being drop tested 6,667 times along with a drum (rolling road) test of 200,000 without failure or the need for adjustment on any component.

Testing was carried out using the Viper power cycle connected to a Quickie GPV wheelchair.

