

## Cougar S11 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.**

**No extra brackets need to be fitted to the wheelchair.**

We have designed the Clip-On system to fit virtually any rigid frame wheelchair, plus a large majority of folding wheelchairs, without the need of extra brackets or hardware being added to the wheelchair. Our unique clamping method has a large range of adjustability. The powerful jaws clamp to your wheelchair with a vice like grip. The jaws have been treated with a PVC membrane to help prevent scratching the wheelchairs paintwork.

**Easy to Dock:** The rider wheels up to the Clip-On handcycle and into the clamps. With a few turns of the tightening levers the clamps grip to the front down tubes of the wheelchair. The riders then push the top of the handcycle away from themselves, thus lifting the wheelchair casters off the ground; the latching system will simultaneously lock in to place.

Once docked, the user activates a secondary safety lock. This safety lock ensures that the system cannot be undocked accidentally, even when the main release lever is activated. To undock the rider must be stationary.

**Super Strong:** PVC coated clamping jaws have been designed to lock onto 19mm tube all the way up to 35mm tube, this covers almost all wheelchairs that we know of. The amount of adjustability available ensures our system will fit tapered, V, and straight wheelchair front down tubes.

