

Heavy Duty Hauling Bicycle Trailer

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As motivation towards more environmentally friendly transportation has heightened, the bicycle has evolved into a functional and enjoyable way of transporting one's self and belongings. Currently many inner city messenger service use bicycles in cooperation with bicycle specific trailers to deliver anything from large packages to Peking duck to all corners of the city. Though there are nearly a hundred bicycle trailers available today, there are none that are capable of transporting large heavy objects safely.

A product of an idea generated by Dainel Kuelgen, a resident of Potsdam, NY, The Heavy Duty Hauling (HDH) trailer is a device that will allow a cyclist to transport a 300-pound, awkwardly shaped load, safely. Communicating via email for the past two months, while Daniel completes a bicycle trek across America, the trailer design has taken flight.

A hybrid between a bicycle utility trailer and a pickup truck, the HDH trailer will turn most any standard mountain bike into a large capacity utility vehicle. Though the HDH trailer will be a useful tool in many applications will be specifically designed for use at a construction site. The trailer, paired with a large tricycle will serve as the soul transport of building materials to and from the building site. Carrying materials ranging from four by eight-foot pieces of plywood, to bags of cement the HDH trailer will safely relocate a variety of awkward and heavy objects, solely by manpower.

There are several key features of the HDH trailer that set it apart from the presently available utility trailers. Auxiliary trailer breaking will assist the preexisting bicycle braking system in decelerating the 300+ pound cargo. Independent suspension paired with a sway bar will allow the trailer to be operated safely on unsealed surfaces. An easily detachable hitch will allow for quick removal from the bicycle so the trailer may be maneuvered by hand. The cargo area of the trailer will be of much larger capacity than existing trailers.

The HDH trailer project is a cooperative design project between four Mechanical engineering students, Clarskon university faculty and a community sponsor. The HDH project team will begin manufacturing in the summer of 2000.

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