Cycling Equipment

The best bike to complete the event on is a road bike. Other types of bike available are mountain bikes and hybrids.

When choosing a bike for this event the two most important points to remember are the weight of the bike and the thickness of the tyres. Both of these points relate directly to the speed you will be able to cycle at for a given effort. Therefore the easier it will be to cycle on the event.

The heavier a bike the more gravity acts against it. In other words the more weight you carry the harder it is to cycle up a hill.

With regards to the tyre size this relates to ‘rolling resistance’. There are 3 main forces acting on a bike, gravity (mentioned above), air resistance (which is hard to adjust) and rolling resistance. Rolling resistance is the resistance caused by a tyre rolling over the ground; in simplistic terms the thinner the tyre the lower the resistance. In other words equip your bike with narrow tyres and make sure they are inflated to the recommended pressure (usually found on the side of the tyre).

Road Bikes:

These are distinguishable by drop handlebars, skinny tyres and thin tubing. It is these characteristics that make them ideal for the event; skinny tyres reduce rolling resistance, thin tubing makes the bike light and the drop handlebars give you a variety of positions to put your hands in when cycling. This all leads to faster speeds for the same effort, which over 70-100 miles per day can make a big difference in time and effort.

Mountain Bikes:

Have flat handlebars, knobbly tyres, thick tubing, some have suspension forks and some also have suspension at the rear of the bike as well. It is these characteristics that make mountain bikes slower on the road.
Hybrid:

Hybrid bikes are a cross between a road bike and a mountain bike. Typically they come with flat handlebars and semi slick tyres. However they will tend to be a different geometry to a mountain bike so that you ride in a more upright position. They also tend to have less suspension than a mountain bike but can be heavy.

If you already own a mountain bike or do not fancy buying a road bike for the event, a few simple changes can make all the difference to a mountain bike or a hybrid for cycling on the road.

The most effective alteration is to change your tyres to skinny / slick tyres. *Note: make sure you get the correct size tyre to fit your wheel. Ask in a bike shop if you are unsure.*

Try to remove as many unnecessary items from your bike to make it as light as possible, such as bike locks, baskets, panniers (bags that attach to the side of your bike), etc. However do keep 2 bottle cages on so you can keep well hydrated.

Change the height of your saddle so that you maximise your pedalling efficiency and put less stress on your knees. As a rule of thumb, your saddle should be set at a height so that when you are sat on it you are on tip-toes / you can not quite reach the ground, and when you pedal your knee should not lock.

If you get to a level where you want to improve your cycling even further, a pair of **cycling shoes and pedals** allows you to further increase your efficiency. They work in a similar fashion to a ski binding, clicking in and out sideways, and allow you to pull up on the pedals as well as push down improving your energy usage. There are two distinct types of shoe and pedal systems—one for the road and one for off-road (mountain bikes). Please note that all pedal types will fit any bike. If you are new to cycling it may be easier to use mountain bike shoes and pedals as these are not as stiff so it is easier to unclip your shoe from the pedal. Mountain bike shoes are also easier to walk around in as they tend to have rubber grips unlike the smooth sole of a road shoe.
Finally before you begin training, whether on a new bike or your trusty old steed, it is a good idea to give it a good service. Your local bike shop will be able to do this for you.

**Other Equipment**

A *cycle helmet* is compulsory on our event at all times, and we highly recommend you use one whilst training.

![Cycle helmet](image)

A *bike computer* can aid training by giving you an idea of speeds and distances, as well as giving you some figures to brag to your friends and colleagues about after your long ride at the weekend.

![Bike computer](image)

You should always ride with one or two *spare inner tubes*, tyre levers and a pump so you can mend punctures. It is also a good idea to carry a multi-tool, money for emergencies, a mobile phone and a waterproof, as well as some drink.

![Inner tube, Tyre levers, Manual Pump, CO2 pump](image)

A good location to store your tools is in a *saddle bag*; these can be left on your bike so that you never leave on a ride without them.

![Saddle bag](image)
Cycle lights and reflective straps/vests for when it gets dark make night time training safer. You won’t need these on the event.

Cycle clothing can be expensive, but it does have a purpose. Cycling shorts may not look the most attractive but the added padding is well worth the funny look whilst you are on your long rides.

A cycle jersey will be breathable and help wick away sweat and keep you cool in the summer. They also have pockets on the back for you to carry items in.

Cycle gloves are useful not only to keep your hands warm when it is cold, but they act as a protective layer if you are unfortunate enough to have an accident.

A waterproof jacket is useful if you happen to get caught out in the rain, and can be used as an outer layer to keep you warm when it is cold or when you stop.

Other items of clothing that will make cycling more enjoyable no matter what the weather include; thermal layers to wear under a cycle jersey to keep you warm in the winter. A gilet will keep the wind off your torso when you do not want to be as hot as wearing a jacket; cycle leggings; booties/overshoes, to wear over your shoes when it is really cold to keep your feet warm and dry; arm and leg warmers act as another layer, but can be easily removed when you warm up.
Booties/Overshoes  Arm Warmer  Leg Warmer