

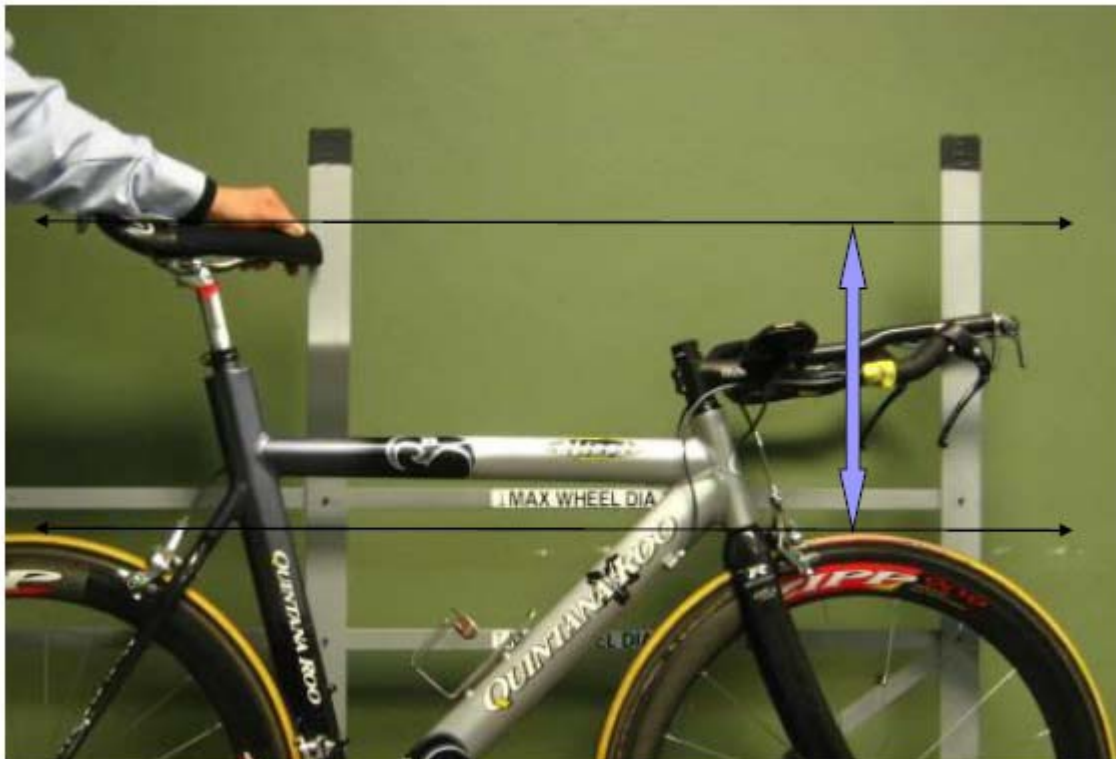


Bike Weight

For all road, cyclo-cross and track events there is a minimum weight requirement of 6.8 kg . Ultra light road bikes and many track bikes may weigh less than the minimum weight. Water bottles, tool bags, pumps and such items that can simply be removed from the bike are not counted in the minimum required weight.

Handlebars

The regulations limit the normal forward reach of standard handlebars to 5 cm beyond the front wheel axle. This does not include the brake levers. As with most bicycles, the manufacturing industry makes compliance happen almost regardless of the components or frame. Handlebars of any kind must be lower than a level line drawn from the top of the saddle. The lowest part of the bars must also be higher than the top of the wheels.



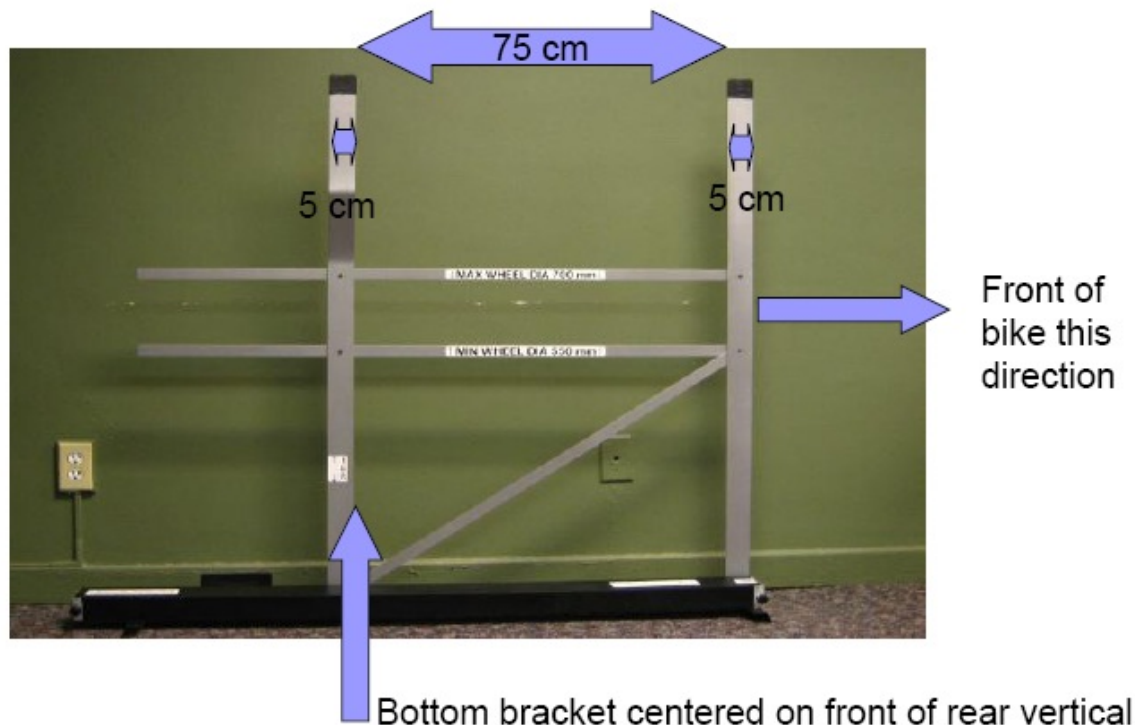
Wheels

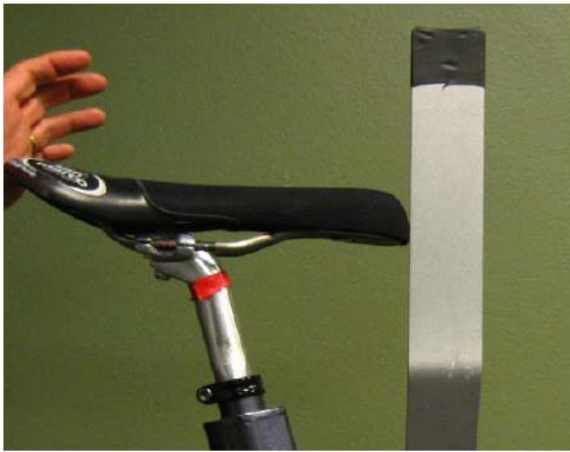
Wheels must be of the same diameter, between 550 mm and 700 mm, including the tyre.

Bike Fit and Adjustment

The rider's points of supports; saddles, handlebars and pedals, have dimensional and adjustment limits that affect the rider's position on the bicycle. The regulations for rider's fit on the bicycle vary between general endurance and pure speed events. First, the standard fit details are given. Following this, exceptions for body fit, or morphological exceptions will be reviewed.

For endurance or all mass start events; **road, track and cyclo-cross**, the nose of the saddle must be a minimum of 5 cm behind a vertical line drawn up through the center of the crank axle. For speed events (track); **sprint, 500m, kilometer and team sprint**, the nose of the saddle may move forward inside this 5 cm dimension, but never beyond the center of the crank. These measurements are made using a jig:



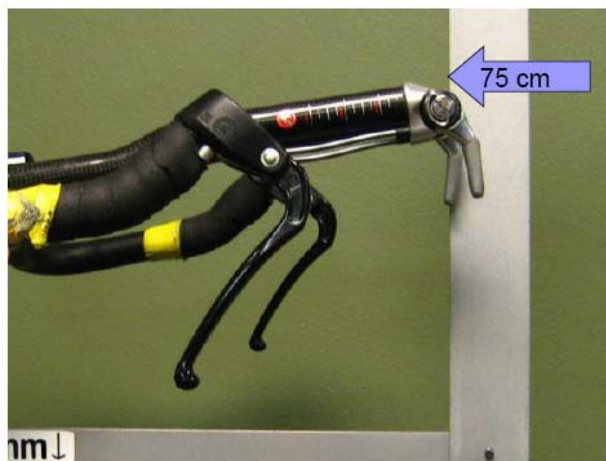


This saddle meets the standard dimension limits. It is 5 cm behind the bottom bracket axle.



This saddle is too far forward for endurance events, but is legal for track speed type events.

For time trial events, handlebar extensions may be added. These extensions may offer forearm support, but cannot be designed to allow pulling or applying leverage against the handlebars. **The maximum forward horizontal dimension of the handlebar extensions is 75 cm** and is measured horizontally from the center of the bottom bracket axle to the end of the extension. Handlebar extensions should be parallel or nearly parallel to the ground such that the rider's arms are parallel to the ground when in use.



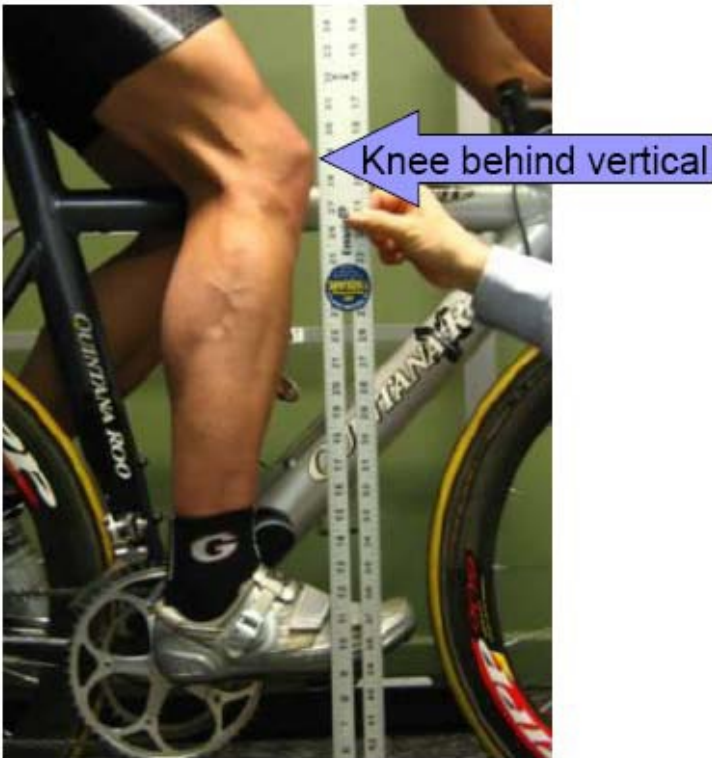
These bar extensions are at the limit. The gear lever bolt is right at 75 cm from the bottom bracket axle.

Saddle Position Morphology and Exceptions

One of the primary fit regulation issues is where the nose of the saddle can be in relation to a vertical line through the bottom bracket. As noted above, the regulation indicates the saddle must be 5 cm behind this line for most events. A rider whose saddle position is forward of this point, but no further forward than the center of the bottom bracket, must pass the following morphology test to be allowed to use this saddle position.

Seated on the bike, with feet in shoes and clipped into the pedals, the foot/pedal is placed in the forward position (pedal horizontal-3 o'clock). In this position, the leading edge of the knee cannot be forward of the vertical line through center of the pedal axle. If the knee is found to be forward of this line, the saddle must be adjusted backwards and the verification is undertaken again. If the saddle cannot be adjusted for proper compliance, a smaller saddle might be an option.

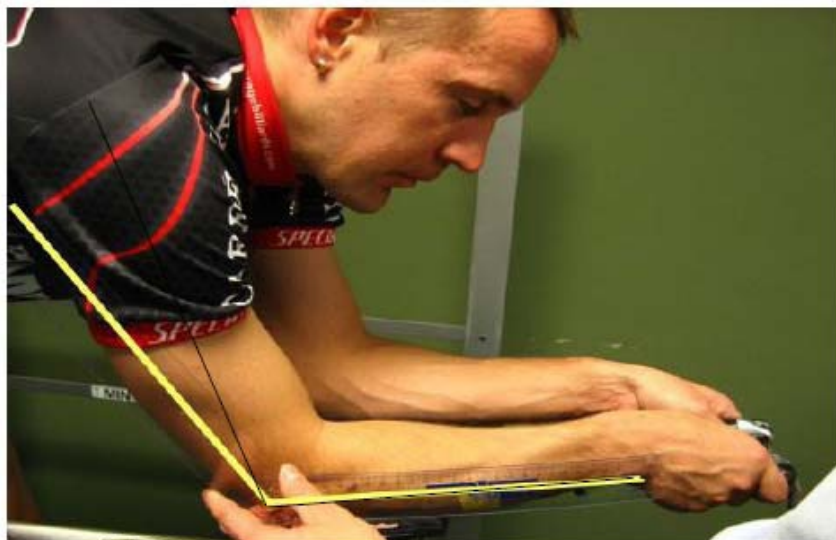
The saddle must be between 24 cm and 30 cm in length. Shorter riders and those with small frames are more likely to need this fit test performed. Note that the rider may not slide off the back of the saddle to move the knee back for this test. In fact, a rider who has normal leg length and is over 5' 6" really has no business requesting this test as such a rider can easily attain a legal position simply by moving the saddle back.



This rider would pass the morphological test for the saddle position behind the vertical. Note that the rider must be in their true riding position when doing this test.

Handlebar Extension Morphology

Extensions, whether a clip-on device or full replacement of the handlebar, are designed to offer the rider a more aerodynamic position, with an extended reach. Enforcement of handlebar regulations is to regulate two things; “superman” position (extended forward reach) and a level arm position. The regulation limits a handlebar extension to a horizontal dimension of 75 cm measured from the center of the bottom bracket axle to the end of the extension. A rider with a longer extension, but only up to a maximum of 80 cm overall (another 5 cm) must pass the following morphology test in order to be allowed to use the distance between 75 cm and 80 cm. The rider is placed on the bike, again in the appropriate time trial position and the angle between the rider’s forearm and upper arm is measured. As long as this angle is not greater than 120°, the additional extension length, up to the 80 cm maximum, is allowed. The rider must reach to the end of the extension before this measurement is taken. If you do not use some portion of end the bar and don’t want it to be part of this measurement, then it should be adjusted back or removed. Riders may not slide off the front of their saddle to decrease this angle. **If a gear lever is added to the extension, the non-moveable portion of this device is counted in the overall measurement.** This test is more common for tall riders.



This rider passes the handlebar extension morphology test. His elbow angle is less than 120 degrees.

Timing of Bike Check

Plan accordingly. The emphasis of compliance review is largely focused on, but not exclusively, on time trial and track events. Bikes are first checked for overall equipment, weight and dimensional compliance. If all the regulations are met, the bike is passed

with no further testing required. Assuming the equipment and weight are acceptable, but the dimensions (for saddle position, handlebar placement, handle bar extensions) are outside the standard allowable limits, the bike and rider must be checked for morphological fit exceptions.

A check of the bicycle with the rider seated, with racing shoes attached to pedals and the rider in the appropriate riding position for the specific event, is done.

Remember, it takes a few minutes to verify your bike's compliance even if everything is adjusted within the specified regulations. If you know that you require a test for exceptions as outlined in this article, report to the officials a bit earlier than normal.

Once a bike has been verified, however, it cannot leave the measurement area without being re-verified before the start of the event.

The UCI regulations are available at www.uci.ch and are found in Part 1, General Regulations

under Section 1.3.