

Body Bike Fitting System

Sophisticated Biomechanical Analysing Tools

Abstract

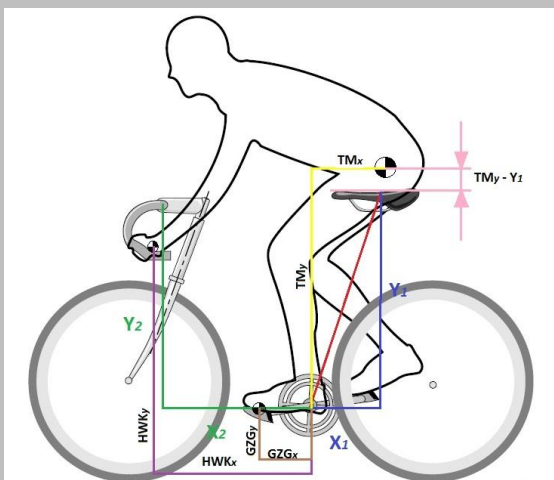
“Cycling is a marriage between the human body, which is somewhat adaptable, and a machine that is somewhat adjustable” (Andy Pruitt, Boulder, U.S.)

To determine and calculate the best position* on the bike we have to gain real dynamic data during pedaling. First we determine the actual kinematic and dynamic properties of the lower limbs.

A software program using the rider's anthropometrics calculates a target kinematic and dynamic by shifting the points of body contact with the bike. Afterwards the bike contact points are measured, representing the current position.

Thus, the bicycle and the rider are included in a common coordinate system. The size differences between current and new contact points are calculated. And this will enable the execution of the optimal motion, and identification of the bicycle fit which facilitates said motion.

With the aid of a purpose-made *Bike Jig* all relevant parts like saddle, handle-, trial bars or cranks can be measured, adjusted and/ or later proofed in the same coordinate system.



*in the sense of muscular strength and transmission in relation to muscle performance

Methodology Workflow

