

Parts for racing bicycles are judged primarily by their functional quality, which has a direct bearing on whether one wins or loses the race.

The derailleur featuring outstanding gearshifting performance, and the brake offering smoothness and effectiveness as well as efficiency—these New Dura-Ace racing parts have been specially developed for smoother operation, lighter weight, greater durability and easier maintenance.

In addition, the vital functions of each part—crucial to the outcome of any race—have been maintained at the same high level. What is so important about gearshifting performance?

Why is it necessary that parts be designed with less weight, even by 1 gram?—because each of these factors can be vital to the goal of winning races.

Helping true competitors win their races is what great bicycle parts are all about. And since this is our primary goal, we have dedicated our efforts toward producing state-of-the-art racing bicycle components that give racers the functional performance they are looking for. In developing the New Dura-Ace Series bicycle components, the basic mechanisms were thoroughly refined and innovations were added, including Shimano's advanced gearshift-positioning mechanism, the SIS (Shimano Index System).

Even highly experienced professional racers have found themselves facing such problems as improper gearshifting due to fatigue or lack of concentration, idling as a result of chain slippage and reduction in pedaling power while shifting gears.

Any problem, no matter how seemingly small, can adversely affect speed as well as increase fatigue.

The end result can be a critical loss of power in the final sprint—and subsequent defeat. The SIS has been designed to prevent loss while shifting gears, and it enables proper gearshifting at the touch of a

The SIS is truly an ideal system for racers. The brake requires what are often contradictory characteristics—braking performance and maneuverability. In trying to solve this conflict, the New Dura-Ace brake system is designed to further reduce cornering approach distance. A number of conditions can interfere with braking performance—the rider's condition, road conditions, weather, temperature, wheel rims, tires, and many more. In any case, efficiency is determined by how well lever input is conveyed to the arch. The New Dura-Ace brake system increases input/output efficiency to a maximum, while reducing friction in the complete system to a minimum.

A winning design has also been incorporated into the pedal. Here, the vital factors include not only close contact of the foot with the pedal for pumping ease, but also quick, short cornering. The New Dura-Ace pedal has increased road clearance 5° more than any other mass produced pedal, a major design breakthrough. The wide range of outstanding New Dura-Ace functions are easy to notice once in action on the race course.

Top racers throughout the world will appreciate the New Dura-Ace Series offered by Shimano.

The bicycle parts for racers challenging records, aiming to achieve their best performance yet.

New Dura-Ace Series—designed with the features that can make you a winner.



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