

자전거 안장의 연체압 분포와 주관적 안락도의 상관성에 관한 연구
(Correlation between the Subjective Comfort and Elastic
Body Pressure Distribution on a Bicycle Saddle)

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In bicycle design, saddle is the major part which effects the subjective comfort of rider. This study examines the correlation between the subjective comfort and elastic body pressure.

The elastic body pressure measuring instrument for free-form surface such as saddle is developed by force sensor register, A/D converter and computer. The subjective comfort is measured quantitatively by 11-point scale method and the elastic body pressure distribution is obtained through 3 different saddles at 4 postures. The pressure distribution is presented by computerized equi-pressure contour.

While mean pressure, standard deviation of pressure, maximum pressure are inversely proportional to subjective comfort, the modified saddle-bearing weight which is the surface integral of pressure is directly proportional.

Consequently, standard deviation of pressure is most important characteristic which affects variation of subjective comfort.

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