IS 10613: 2023

Cycles — Safety and Performance Requirements for Bicycles (Third Revision)

This standard for bicycles and sub-assemblies was first published in 1983 and revised twice before the third revision in 2014. The Bicycle Industry Association requested this revision to create a structured manufacturing process, fair trade, and safer cycling environments. The aim was to prevent the Indian bicycle market from being a dumping ground for cheaper and substandard bicycles while making exports more globally competitive.

The third revision of this standard includes three additional categories of bicycles: Young Adult Bicycles, Mountain Bicycles, and Racing Bicycles. It incorporates fatigue, static, and impact tests for various bicycle parts such as frame, fork, handle, saddle, and pedal, among others. Additionally, high-end or fancy bicycles are subjected to higher loads and more test cycles. Compliance with this standard is expected to ensure the highest level of safety practical for manufactured bicycles.

The tests within this standard are designed to ensure the strength and durability of individual parts as well as the bicycle as a whole. These tests demand high quality throughout the design stage and consideration of safety aspects from the beginning. The standard focuses on safety and specifically avoids standardizing components.

For improving repeatability and reproducibility, the machine test method is preferred to the track test method. However, the track test method may be used with evidence of its improvement in the future.

In conclusion, the third revision of this standard is essential for the development of structured manufacturing, fair trade, and safer cycling environments. It is aimed at preventing the Indian bicycle market from becoming a dumping ground for cheaper and substandard bicycles while making exports more globally competitive. Compliance with this standard is expected to ensure that bicycles manufactured are as safe as practically possible, with tests designed to ensure the strength and durability of individual parts and the bicycle as a whole.

IS 10613: 2023

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