



COMPENDIUM OF INDIAN STANDARDS ON BICYCLES



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1. IS 1281:2014 – Bicycles — Cranks and Chain Wheels

This standard covers the requirements for cranks and chain wheels intended for the chain drive and fitted on the bottom bracket axle of bicycles. It includes dimensions of crank, chain wheel and crank-chain wheel assembly. It also stipulates methods and requirement of tests including Chainwheel fixing strength test, Static load strength test, Drop impact test and Repeated fatigue strength test.

2. IS 1282:2018 – Bicycle Cotter Pins, Washers and Nuts

This standard covers the requirements for bicycle cotter pins, their washers (spring and plain) and nuts for two standard sizes (22 and 24) of bicycles, including material requirements and dimensions.

3. IS 2061:1995 — Bicycle Front Forks

This standard covers the requirement for the front forks used in different sizes of bicycles. It includes dimensions and material requirements. It also stipulates methods and requirements of Load test, Chemical test, Expansion test and Impact test.

4. IS 2414:2003 — Cycle and Rickshaw Pneumatic Tyres

This standard specifies the requirements for cycle and rickshaw pneumatic tyres to be used in normal and heavy duty applications. It specifies dimensions for various tyre sizes including overall diameter, sectional width and rim width. It also stipulates methods and requirements of Tensile strength, Ageing test, Adhesion test and Tyre performance test.

5. IS 2415:2015 — Cycle Rubber Tubes

This standard covers the dimensions and other requirements for cycle rubber tubes intended for use with tyres prescribed in IS 2414. It classifies the tubes in 4 different classes and specifies dimensional requirements including flat length, flat width and thickness. It also stipulates methods and requirements of tests including Tensile strength, Ageing test, Adhesion strength, Leak test and Valve test.

6. IS 2973:2017 — Bicycle Steering Head Assembly

This standard covers the sizes, materials, and quality requirements for bicycle steering head assemblies of types 'R', 'PH', 'Cage', and 'Threadless' type. It also stipulates method and requirement of test for Lamp Bracket Load test.

7. IS 6218:2008 — Bicycle Mudguards

This standard covers the requirements for front and rear mudguards for bicycles including materials and workmanship. It also stipulates Peeling off requirement for paint on the mudguards.

8. IS 623:2008 — Bicycle Frames

This standard outlines the material, size, and performance requirements for bicycle frames. It specifies dimensions of frame tubes and screw threads. It also stipulates methods and requirements of tests including Impact test on Frame- Fork assembly and test for frame finish.

9. IS 624:2003 – Bicycle Rims

This standard specifies the requirements for bicycle rims to ensure durability, compatibility with various tire types, and safety in performance. It includes provisions for rims made from cold-rolled low-carbon steel and extruded aluminium alloys. The standard covers four types of rims: Beaded Edge (BE), Straight Side (SS), Hooked Bead (HE), and Crotchet (C), each suited for specific tire compatibility and usage conditions. It also stipulates method and requirement of Compression test to verify load-bearing capacity.

10. IS 625:2006 – Bicycle Handle Bars

This standard sets the requirements for bicycle handlebars, covering materials, design, size, strength and finish. It applies to handlebars for bicycles used for kids and adults, including different types like combined brake-lever bars, separate, or integral designs. It also stipulates that Handlebars and stems must withstand specific forces without damage, including bending, twisting, and fatigue from repeated use.

11. IS 626:2009 – Bicycle – Seat Pillars

This standard specifies the material and dimensional requirements for seat pillars fitted in bicycles. It also specifies that Seat pillars shall meet the testing requirements specified in safety standards IS 10613:2004 or IS 15533:2004, depending on bicycle application.

12. IS 628: 2025 Bicycles — Pedal Assembly

This standard specifies the requirements for pedal assemblies used in bicycles. It specifies materials for stationary and moving Pedal parts. Common pedal styles are also illustrated and defined. Pedals must pass static load, durability, and impact tests depending on bike type. All materials must also pass a toxicity test to ensure safety.

13. IS 629: 2013 Bicycle — Hub Assembly — Specification

This standard covers the dimensions and performance requirements of bicycle hub assemblies, including both front and rear types. Hubs are classified by barrel shape: Thin, Thick, Oval and Parallax Hub suitable for single or multi-speed configurations.

14. IS 630: 2005 Bicycle Spokes and Nipples for Spokes

This standard sets the material and design requirements for bicycle spokes, along with the nipples and washers used to assemble bicycle wheels. It specifies spoke sizes including wire diameters (like 1.8 mm to 2.6 mm) and lengths suited to the wheel hub.

15. IS 6742 (Part 2): 2025 – Cycles – Lighting and Retro-Reflective Devices

This standard covers retro-reflective devices used on bicycles meant for public roads. It applies to reflectors, reflective tyres, and reflective spokes or spoke covers. It defines various types of reflective parts used on bicycles, including front, rear, side, pedal reflectors, reflective tyres, spokes, and spoke cases. Devices are grouped into A or B based on photometric specification. Each type must reflect light with a certain brightness, depending on where it's used. It also stipulates methods of test and requirements for heat, impact, moisture, fuel, oil, and corrosion resistance.

16. IS 9225: 2018 – Bicycle – Bicycle Air Pumps

This standard covers the quality requirements for manual bicycle air pumps used to inflate bicycle tubes. It Includes two kinds: hand-held pumps and foot-operated pumps. Foot pumps come in two sizes (A and B), with set barrel and plunger dimensions. It also specifies materials of barrels and plungers of pumps, and stipulates performance and construction requirements.

17. IS 10613:2023 – Cycles — Safety and Performance Requirements

This standard specifies safety and performance requirements for the design, assembly, and testing of:

- Young Adult Bicycles (maximum saddle height 635–750 mm)
- City and Trekking/Roadster/SLR Bicycles
- Mountain Bicycles
- Racing Bicycles (all with maximum saddle height ≥ 635 mm, including folding types)

Specialized types (e.g., Delivery, Recumbent, Tandems, BMX, competition or stunt bicycles) are excluded.

18. IS 15533:2024 — Safety Requirements for Bicycles for Young Children

This standard specifies safety and performance requirements for bicycles with saddle heights between 435 mm and 635 mm, intended for young children. It covers the design, assembly, testing, and user instructions for complete bicycles and their sub-assemblies. It excludes stunt bicycles (e.g. BMX).

19. IS 16314:2015 — Bicycles for General Purpose

This standard specifies general requirements for bicycles intended for use on public roads. It excludes specialized types such as tandems, toy bicycles, electric bicycles, and racing bikes. This standard provides a comprehensive list of component-wise Indian Standards that general-purpose bicycles must comply with. The standard also cross-references over 20 other IS codes related to various parts and subsystems, forming a consolidated specification for general-purpose bicycles.

20. IS 19034:2024 — BMX Bicycles: Safety Requirements and Methods of Test

This standard outlines safety and performance requirements for BMX bicycles intended for stunts, tricks, and recreational riding on roads, tracks, or ramps. It applies to:

- Category 1: Riders \leq 45 kg
- Category 2: Riders $>$ 45 kg

Testing requirements mentioned in this standard include machine-based and track-based methods. Testing requirements of parameters like force, torque, temperature and Wet & Dry braking performance are stipulated.

For detailed information and to download the Indian Standards, please visit 'Know your standards' tab on BIS Website (www.bis.gov.in).