

700C. Roughly 27-inch diameter wheel size used for most road bikes, touring bikes and hybrids. Also used on some mountain bikes, called 29ers.

Aluminium alloy. Lightweight metal used for quality, mass-market bicycle frames and components. Fatter tubes and chunkier designs are required to optimise strength and stiffness.

Bearings. Ball bearings are used in a bike's headset, bottom bracket, hubs, pedal axles and freewheel. They may be loose, held in a circular cage, or sealed in a cartridge.

Bottom bracket. The axle that the pedal cranks are connected to at the junction of the down-tube, seat-tube and chain-stays.

Butted tube. A frame tube that has internally thicker tube walls at one end so it can be brazed or welded there without compromising its strength. A double-buttet tube is thicker at both ends.

Brake blocks. Also known as brake pads. Softer pads brake more effectively but wear out faster.

Braze-ons. Non-structural frame fitments such as bottle mounts or mudguard eyelets. Often welded rather than brazed in place.

Cable housing. Bicycle gears and most brakes use Bowden cables, with a steel wire inside a steel-and-plastic outer: the cable housing.

Cable stop. Small socketed braze-on for the transition between a curved Bowden cable and a straight bare cable. Cable guides are loops for full-length Bowden cables.

Cadence. This is the pedalling speed in revolutions per minute.

Cantilever brake. Rim brake using brazed-on frame/fork pivots and a straddle cable. Used on touring, cyclo-cross and old mountain bikes.

Carbon fibre. A moulded, composite material made from a weave of carbon fibres and an epoxy resin. Excellent strength-to-weight ratio.

Cassette. Cluster of 8, 9 or 10 sprockets that slides onto a freehub.

Chain-case. Guard that fully encloses the chain.

Chain-stays. Twin frame tubes that join the rear drop-outs to the bottom bracket.

Chainring. Large cog connected to the cranks that drives the chain. Often one of two or three.

Chainset. The cranks and attached chainrings. Also known as the crankset.

Cleat. Metal or plastic shoe plate that clips into the sprung binding of a matching clipless pedal.

Clipless pedal. Confusingly named clip-in pedal that accommodates a matching cleat rather like ski bindings.

Contact points. Handlebar grips, saddle and pedals.

Cranks. Levers that connect the pedals to the chainrings.

Damping. Adjustable or fixed restriction on the rebound of a compressed suspension spring. Undamped springs bounce like pogo sticks.

- Derailleur.** Parallelogram mechanism that derails the chain sideways from one chainring or sprocket to another.
- Disc brake.** Motorcycle-style brake in which a calliper on the fork or seat-stay squeezes pistons onto a hub-mounted rotor. Some are hydraulic, others mechanical.
- Down-tube.** Frame tube that runs diagonally between the head-tube and the bottom bracket.
- Drivetrain.** The bicycle's mechanical propulsion system: pedals, chainset, bottom bracket, chain, rear sprockets, and rear hub. Also known as the transmission.
- Drop bars.** Hook shaped handlebar used on touring bikes, road bikes and cyclo-cross bikes that offers a variety of hand-grip positions.
- Drop-outs.** The slots in the fork and frame that hold the front and rear wheels.
- Drum brake.** An enclosed hub brake in which the pads press on the inside of a metal shell.
- Eyelets.** Threaded mounts for bolting on accessories such as mudguards.
- Fixed wheel.** A single-speed bicycle with no freewheel. When the rear wheel turns, the cranks turn too. Also called fixed gear.
- Fork.** The steerable front end of a cycle, connected via the steerer tube (which runs through the head-tube) to the stem and handlebar.
- Frame angles.** Usually refers only to the angle of the head-tube and seat-tube, which influence steering characteristics and weight distribution.
- Freehub.** Splined rear hub with an integral freewheel, onto which you then slot a cassette of sprockets.
- Freewheel.** Internal ratchet-and-pawls mechanism that transmits drive but allows you to coast without pedalling. Integral to the screw-on sprocket(s) in threaded hubs or to the hub itself in Freehubs.
- Full suspension.** Bike with suspension at both front and rear.
- Gear range.** The difference between top and bottom gear. For example, in top gear one revolution of the cranks might rotate the rear wheel four times, whereas in bottom gear one rotation of the cranks might rotate the rear wheel just once.
- Groupset.** Often taken to mean the gear shifters, derailleurs and chainset. Also includes the hubs, cassette and brakes.
- Hardtail.** Mountain bike with front but not rear suspension.
- Headset.** Bearings in the top of and bottom of the head-tube, which allow the steerer tube inside to turn. May be threaded (where the top headset race screws onto threads on the steerer to hold it in place) or, more commonly, threadless (the steerer is secured by an internal nut and bolt).
- Head-tube.** Short frame tube at the junction of the down- and top-tubes that holds the fork.
- Hub gear.** A hub with an internal 'gear box' and just one external sprocket rather than several.

- Hybrid.** A cross between a road or touring bike and a mountain bike. The default bike from which specialist bikes diverge.
- Mech.** Short for 'gear mechanism', which is the same as a derailleur.
- Pannier.** Bag that fits to the side of a carrier rack on the front or back of the bike.
- Presta valve.** Narrow valve used on road and touring bikes and high-end mountain bikes.
- Quick-release.** A cam-operated clamp with a lever on one end and a knurled nut on the other. Often used to hold wheels and seat-posts in place.
- Recumbent.** A cycle with a reclining or semi-reclining seat, ridden with the feet out in front.
- Rigid.** A mountain bike without suspension.
- Schrader valve.** Car-tyre type valve.
- Seat-post.** Also known as the seat-pin. The pillar that holds the saddle. Can be moved up and down in the seat-tube by loosening the seat-binder bolt.
- Seat-stays.** Twin frame tubes that join the rear drop-outs to the junction of the seat- and top-tubes. This can be either separate tubes or a forked wishbone.
- Seat-tube.** The central, near vertical frame tube that runs between the bottom bracket and the top-tube/seat-stay junction.
- Shifter.** Gear lever. Can be a thumb lever, two buttons, a rotary grip-shift, or else integrated with the brake lever.
- Side-pull brake.** Rim brake that attaches via a hole in the fork crown or seat-stay bridge. Used on road bikes and some hybrids, and can be single or dual pivot. Reach (or 'drop') for side-pull brakes is the distance between the central bolt and lowest brake block position. A longer reach is needed to clear bigger tyres and/or mudguards.
- Singletrack.** Usually refers to an off-road trail that's so narrow bikes have to travel in single file. Can also refer to roads where cars do the same.
- Speed.** When preceded by a number it refers to the number of gears, hence 8-speed, 24-speed, etc.
- Sprocket.** The cog or cogs on the rear hub. The number of teeth on the sprocket gives its size, so 32T is twice as big as 16T.
- Steel alloy.** Bikes can be made from mild-steel or high-tensile steel ('hi ten'); they're strong but very heavy. Steel alloys such as chrome-molybdenum ('cro-mo') have a better strength-to-weight ratio.
- Stem.** Joins the handlebar to the steerer tube. A threadless stem clamps the outside of the steerer. A quill stem uses a wedge bolt on the inside of the steerer, and requires a threaded headset.
- Steerer tube.** The top part of the fork, which passes through the head tube and is clamped by the stem.
- Stiffness.** A frame or component's resistance to being temporarily deformed (i.e. flexed).
- Strength.** A frame or component's resistance to being permanently deformed (i.e. broken).
- Suspension.** All bikes have some suspension courtesy of pneumatic tyres. So suspension is usually

taken to mean additional suspension, from springs in the fork or frame.

Toe overlap. Where your foot on the pedal can hit the front wheel during a turn.

Top-tube. The sloped or horizontal upper frame tube that joins the head-tube to the seat-tube. 'Open frame' bikes don't have a top-tube.

Track pump. A floor pump with a large barrel, a two-handed handle, and a long tube for the pump-head.

Transmission. The drivetrain.

Tyre size. The nomenclature is confusing. A 29-inch tyre is the same as a 28-inch tyre and a 700C tyre! Use the ISO numbers printed on the sidewall, which give tyre width followed by diameter at the rim in millimetres.

V-brake. A direct-pull cantilever brake with longer brake arms and more mechanical advantage than traditional cantilevers. Uses the same frame studs but requires dedicated brake levers.

Wheelbase. The distance between the wheel axles. A longer wheelbase gives steadier or slower steering.

Woods valve. A third valve type sometimes found on old or Continental bikes. You can inflate it with a Presta pump.