

Summary of existing UK e-bike (including cargo e-bikes) regulations

Bicycle Association, October 2024

UK e-bike legislation

Road legal UK e-bikes are defined as ‘not motor vehicles’ in the Road Traffic Act and must comply with:

- *The Pedal Cycles (Construction and Use) Regulations 1983 as amended in 2015*
- *The Electrically Assisted Pedal Cycles Regulations 1983 as amended in 2015*
- And when used at night, with *The Road Vehicles Lighting Regulations 1989 as amended*

Type approval exemption

To be exempt from requiring type approval before sale, e-bikes must meet the definition in *Article 2.2 (h) of EU Reg. 168/2013* (retained in UK law post Brexit).

UK product safety regulations

All e-bikes must meet the requirements (enforced by Trading Standards/OPSS) of:

- *The General Product Safety Regulations 2005 (noting statutory guidance on lithium-ion battery safety for e-bikes published Dec 2024)*
- *Supply of Machinery (Safety) Regulations 2008*
- *Electromagnetic Compatibility Regulations 2016*
- *The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012*
- *UK registration, evaluation, authorisation and restriction of chemicals (UK REACH)*
- (and in some cases also the *Radio Equipment Regulations 2017* and/or *PSTI consumer connected devices cyber security regulations*)

In addition, mains battery chargers must meet:

- *The Electrical Equipment (Safety) Regulations 2016*

Standards and testing

Regularly updated international standards (including standards officially ‘designated’ by the UK’s Office for Product Safety and Standards) apply for e-bikes, including:

- *BS EN 15194:2017+A1:2023 Electrically power assisted cycles*
- *BS EN 17404:2022 Electrically power assisted cycles - mountain bikes*

And for batteries, a recently updated international lithium battery safety standard applies:

- *BS EN 50604-1:2016+A1:2021 Secondary lithium batteries for light EV (electric vehicle) applications*
- Battery packs must also undergo internationally recognised *UN38.3 type testing* before shipping.

Ongoing standards development, with active UK industry participation, is expected to result in:

- 2024-5: A new seven part cargo e-bike standard, *BS EN 17860*
- 2027: A fully revised international e-bike standard including specification for a standardised battery charging interface and communication protocol

Other UK batteries legislation

- For e-bike batteries, there is statutory guidance under the General Product Safety Regulations about what is considered “safe”.
- E-bike batteries must comply with the chemical limits and labelling requirements set out in the *Batteries and Accumulators (Placing on the Market) Regulations 2008*
- UK e-bike importers or manufacturers must also meet battery reporting, take-back and proper disposal obligations under *The Waste Batteries and Accumulators Regulations 2009 (as amended)*