

Guidelines: Things to know about retrofitting bicycles with e-drives

Bicycles are designed and tested for being propelled by pure muscle power. (DIN EN ISO 4210 Part 1 to 9)

These bicycles retrofitted with an e-drive (max. 250 Watt/max. 25 kmh (15.5 mph)) become pedelecs/e-bikes that are subject to the Machinery and EMC Directive and have to be tested in accordance with the DIN EN 15194-2017 standard (for all products put on the market from May 2019 on).

*Translation and layout: Zedler-Institut
www.zedler.de
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The consequences are as follows:

- > Risk analysis necessary
- > Parts list and notes on disposal
- > Proof of fatigue strength for all safety-relevant components must be submitted
- > Proof of EMC necessary for fully-assembled vehicle
- > Proof of functional and electrical safety
- > Original operating instructions in native language in printed form
- > Assessment of conformity
- > Declaration of conformity
- > CE-compliant type plate

Possible legal consequences if retrofitting is performed by the retailer:

- > Commission of an administrative offence or consequences under criminal law
- > Retailer liable for personal and material damage
- > Loss of business liability insurance cover
- > Sales ban by market surveillance authority
- > Consequences regarding right to compete

 This is the translation of the original guidelines issued by ZIV, VSF and BIV (German umbrella organisation for the German cycle industry guilds) in cooperation with Zedler-Institut, updated in 2018. In the event of any misunderstandings, the original German version (Leitfaden: Wissenswertes über das Nachrüsten von Fahrrädern mit E-Antrieben) shall be applicable.

Experts of the following associations / companies were involved in drawing up the present guidelines (in alphabetical order):



velotech.de
tests • consulting • certificates

VSF.

zedler-Institut
Technology and Passion for Bicycles

ZIV
Zweirad-Industrie-Verband