

## DIRK ZEDLER: PAPER MANUALS STILL KEY

# E-BIKE MAKERS BEWARE: DIGITAL USER MANUALS MAY NOT BE COMPLIANT

In these economically challenging times, we often hear that some players see potential for savings in the field of user manuals and declarations of conformity. Allegedly, the good news is that operating instructions may now be provided purely in digital form.

In fact, the use of digital-only documentation poses a risk for manufacturers. In the Regulation on Machinery, the White paper only just published on this subject and the harmonised EN 15194 standard it is stipulated quite differently. The paper form for essential parts of operating instructions is still required. Purely digital documents are likely to be rejected in court or by a market surveillance authority, which can lead to expensive consequences.

To give you an idea of the situation, we have compiled excerpts from the relevant passages of the new regulation and the applicable harmonised standard. The texts are the original ones, the only change that was made is highlighting in bold.

The German association for technical communication – tekomp Deutschland e.V. is also very critical about 'purely digital'. In this regard we also compiled excerpts from the editorial article "Die EU sorgt für Spannung" (The EU creates tension) published in the association's magazine "technische kommunikation" (technical communication).

**New Regulation on Machinery Regulation (EU) 2023/1230** of the European Parliament and of the Council

**(...) Chapter II, Obligations of economic operators, Article 10 (7) and (8)**

7. Manufacturers shall ensure that the machinery or related products are accompanied by the instructions for use and the information set out in Annex III. ...

In the case of machinery or a related product intended for non-professional users or that can, under reasonably foreseeable conditions, be used by non-professional users, even if not intended for them, the manufacturer shall provide, in paper format, the **safety information** that is essential for putting the machinery or related product into service and for using it in a safe way. ...

(8) Manufacturers shall ensure that the machinery or related product is accompanied by the EU declaration of conformity ... or, alternatively, manufacturers shall provide the internet address or machine-readable code where that EU declaration of conformity can be accessed in the instructions for use and the information ...

**Definition "safety information" from the EU white paper on the Machinery Regulation:**  
Meaning of 'safety information' that is



essential' mentioned in the fourth subparagraph of Article 10(7) of the new Machinery Regulation:

It is understood that such information should, as a minimum, consist of information relating to assembly, start-up, use, maintenance and transport of the machinery, ensuring that, by following those instructions, the safety or health of the user or a third person is not at risk. This information should be consistent with the instructions for use.

**EPAC standard 15194: 2018-11**

(...)

6 Instructions for use

Each EPAC must be supplied with a set of instructions for use in the language of the country in which the EPAC is destined to be supplied. In various countries local requirements relating to this kind of information may be valid (see EN 82079-1). It is obligatory that the instructions for use are made available in paper form. For more detailed information to enable access for vulnerable people the instructions for use should be available additionally in electronic form on demand.

(...)

**The German Association for Technical Communication Tekomp takes position**

Lawyer Jens-Uwe Heuer-James commented in issue 05 (September/October 2023) of the trade journal „technische kommunikation“ of Gesellschaft für Technische Kommunikation - tekomp Deutschland e.V. (translation):

(...)

Digitalisation is controversial

...

However, the comprehensive discussion of this approach has shown that digitalisation is not accepted everywhere. During the consultations, in particular consumers' associations criticised the

approach. The criticism of the associations was heard. For consumer products, the digitalisation of usage information in the sense of replacing paper documentation does not apply.

It is only possible to provide consumers additionally with an offer of digital user information.

(...)

Author: Jens-Uwe Heuer-James

**Notes on the actual practice with operating instructions**

The most important thing to conclude from the applicable regulations and standards is: B2B purely digitally – yes, B2C purely digitally – no.

Based on the facts, it can be concluded that digital component instructions are legal when components (drive systems, brakes, wheels, etc.) are sold by the supplier to the bicycle manufacturer.

The bicycle manufacturer or its trading partner, on the other hand, must hand over the standard compliant operating instructions for fully-assembled and ready-to-ride e-bikes, e-MTBs and e-cargo bikes in paper form when selling them to the end user. This means that this job is in the responsibility of the brand or the manufacturer of the fully-assembled bicycle.

As a bicycle manufacturer, you are one hundred percent without initial suspicion for a trade or market surveillance authority if you enclose printed instructions for the bicycle/e-bike in the respective national language.

This is in fact not always realisable. With some manufacturers that supply their products globally hybrid concepts have already been realised successfully in the past years. In other words, relatively concise operating instructions in several or many languages were printed. And this printed manual was or is supported by weblink or QR code with comprehensive, detailed instructions, of course specifically according to EPAC/e-bike categories. The instructions of the drive system and component suppliers are additionally made available within the "Technical support".

Both concepts were accepted without difficulties from the market surveillance and accident prevention authorities in many countries of the European Union, but also in the UK and Switzerland. This is how the manufacturers have managed, together with us, the three-dimensional balancing act of cost efficiency, customer service and release from liability.

That is, however, not always the case. We have been learning that for some years now from the proceedings of the authorities that we accompanied in Italy, France, Austria, Switzerland and, of course, the largest market for electric bicycles, Germany. This year alone, there have been already nearly ten. ■ Dirk Zedler



## DIRK ZEDLER

Since 1993, Dirk Zedler has been an analyst and expert witness on bicycle accidents and product failures for courts, bike and insurance companies, and private individuals. He got his start in the industry by working for a large bike shop from 1986 on, and now holds the respected advanced engineering degree known as "Diplom-Ingenieur".

Courts have recognized Zedler as an officially appointed and sworn expert on bicycles since 1994, and on electric bicycles since 2014.

The Zedler – Institute for Bicycle Technology and Safety has used this wealth of knowledge, derived from his and his teams work in thousands of court proceedings and expert's reports not only in Germany but from the US to all over Europe, to enhance research and development in the bicycle industry.

The Institute proactively minimises damage for cyclists and insurers. It sets the standards for the bicycle industry. It develops and builds testing equipment that is used by manufacturers to improve the riding performance and safety of their bikes, and by leading European bicycle magazines to test them. These tests can also protect manufactures from potentially upcoming lawsuits if they fulfil the necessary safety standards. The Institute's work provides a basis for European and American manufacturers to communicate with their Asian suppliers. Manufacturers can buy test equipment from the Institute or use its state-of-the-art testing labs.

The Zedler Institute also prepares risk assessments, conformity documents, workshops, recall papers und user manuals for bicycles and pedelecs. These manuals, now available in more than 40 languages, help consumers use their bikes properly — and in many cases have protected manufacturers from liability.

Our experts draw on the wealth of experience gained through several thousands of expert's reports to train experts from in and outside the bike industry, such as automotive experts.

What we have learned from court cases, the proceedings of the market surveillance authorities and recalls is the content of our training courses for bicycle manufacturers. As a result, they are in a position to set up CE conformity processes internally.

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