

Press Release

Assistance systems have arrived in motorcycles

Safety update for two-wheelers

- ▶ Accident researcher: Great potential to save lives
- ▶ Systems increase safety – riding experience remains the same
- ▶ Cornering ABS even enables braking when leaning heavily

Motorcycles are currently undergoing a major safety update. Electronically controlled safety systems have now arrived in the two-wheeler sector following their triumphant advance in cars: Cornering ABS and traction control, riding modes and active suspension, cruise control, cornering lights and lane assist are designed to make the lives of bikers not only more comfortable, but above all safer. The motorcycle experts at DEKRA recommend familiarizing yourself with the sometimes complex systems in order to be able to assess the limits of your own vehicle under the new conditions.

“Electronic safety systems on motorcycles have great potential to save lives, to reduce the consequences of accidents or to avoid accidents altogether. This potential must be made full use of”, says Luigi Ancona, accident researcher at DEKRA. “Riding a motorcycle is still dangerous. According to the 2021 accident statistics in Germany, the risk of being killed on a motorcycle in relation to the vehicle population is five times higher than in a car.”

ABS is an important lifesaver

The well-established ABS already promises more safety. The system stabilizes the motorcycle during heavy braking and can shorten the braking distance for most riders; it also prevents over-braking of the front wheel and thus dangerous crashes. Even on wet roads, excellent deceleration values of up to 8 m/s² can be achieved with the anti-lock braking system. Normal riders are generally unable to achieve such values without ABS. According to studies, many lives could be saved if ABS was already working in all motorcycles. In consequence, ABS has been mandatory equipment on new machines with a displacement of over 125 cc in the EU since 2017.

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In the higher price range of motorcycles, there is now a wide range of assistance systems to choose from. It ranges from cornering ABS, traction control, various riding modes and electronically controlled suspension to cruise control with distance control and cornering lights, lane assist and shift assist. "It doesn't really make sense to talk about individual systems here, because everything is networked with everything else and the various systems are constantly working together closely", explains Ancona.

With the help of cornering ABS, it is possible to brake and maintain the driving line even when leaning heavily to one side. This makes it easier to defuse critical situations in which the brakes have to be applied unexpectedly in a bend. Integral braking systems ensure optimum distribution of braking forces between the front and rear wheels, thus increasing stability when braking. In addition, a special traction control system can regulate the engine power even when cornering and thus help to maintain grip on the road surface.

More safety in changing conditions

Wheelie control, on the other hand, prevents the front wheel from lifting off when accelerating too hard. With riding modes such as "Touring", "Urban" or "Rain", the characteristics of the vehicle can be adapted to the riding situation, the weather or the road conditions. "This means greater safety and gives riders a better driving experience in changing road and weather conditions", says the accident researcher.

He does not share the fear that drivers could lose too much freedom of action to the assistance systems. "The systems tend to do their work in the background and only intervene when risks become apparent. The motorcycling experience and the rider's autonomy remain intact", says Ancona.

The DEKRA expert is convinced that the motorcyclists would normally benefit greatly from the new safety systems. "When buying a used bike, it's worth making sure it's in good technical condition and has sensible safety features. For example, I would count ABS as one of the absolute basics these days."

Never take a higher risk

However, the new technology must not tempt riders to undo the safety benefits of the assistance systems by driving too brashly. "Even the best systems are not able to override the basic laws of driving physics", says the DEKRA expert.

He also advocates familiarizing yourself with the functions, operation and limits of the assistance systems installed in modern motorcycles. Taking regular safety training courses is recommended.



About DEKRA

DEKRA was originally founded in 1925 to ensure road safety through vehicle inspection. With a much wider scope today, DEKRA is the world's largest independent non-listed expert organization in the testing, inspection, and certification sector. As a global provider of comprehensive services and solutions, we help our customers improve their safety, security, and sustainability outcomes. In 2022, DEKRA generated sales totaling nearly EUR 3.8 billion. The company currently employs almost 50,000 people who offer qualified and independent expert services in approximately 60 countries on five continents. With a platinum rating from EcoVadis, DEKRA is now in the top one percent of sustainable businesses ranked.