

## Press Release

## Transporting bicycles safely by car

# When bikes travel piggyback

- Do not overload carrier or trailer coupling
- ▶ Rear load changes driving characteristics
- Special marking required by law in some countries

Whoever wants to transport their bike by car often uses a rear carrier that sits on the trailer coupling. The DEKRA experts explain what they need to be keep in mind in terms of installation and use to ensure a safe journey.

Simple installation, low loading height, and low air resistance during the journey speak in favor of the "piggyback" solution. For people who find it difficult to cope with the weight of pedelecs, for example, some carrier models even have a mini loading ramp to make loading easier. With the rear carrier, the bike is placed in a carrier rail, fixed to the frame with a bracket and secured to the wheels with straps. Additional securing with lashing straps on the carrier or the vehicle provides additional support and reduces vibrations while driving.

Before setting off, it is important to remove all parts that could come loose on the way, such as the luggage basket, air pump or water bottle. In the case of electric bikes, the battery must also be stowed inside the vehicle to protect it from impact. For longer journeys, covers for the pedelec are recommended. They protect sensitive electrical parts such as controls, battery contacts and display from rain and dirt.

The bike carriers can usually be tilted backwards to open the hatch. It is therefore better to check again before starting whether the carrier is correctly secured.

#### Trailer coupling must fit without play

At the start of the season, the trailer coupling deserves special attention as a load-bearing part. Its ball rod must sit in the bracket without play, even when shaken firmly, and be locked for operation in accordance with the operating instructions. When correctly fitted, a green field will be visible on some models. In some newer vehicle models, the locking status is even displayed in the cockpit. You should also check that

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the cables and plug connections are in order and that the lights on the bike carrier are working properly.

You should also make sure that the rear carrier is firmly attached to the ball head, clamped, and secured in accordance with regulations. "Also check the screw connections on the bike carrier and tighten them if necessary", recommends DEKRA accident expert Luigi Ancona.

It is also important that the load capacity of the carrier is sufficient for the weight of the bikes being transported. Two modern pedelecs usually weigh around 50 kilograms even without batteries. The support load of the trailer coupling must also be sufficient, i.e., higher than the weight of the bikes plus the weight of the carrier itself. A look at the vehicle's operating instructions will help here.

## **Changed driving characteristics**

A loaded bike carrier at the rear changes the handling of the vehicle. "A 70 to 80 kilogram 'rucksack' at the rear takes some of the load off the front axle and shifts the vehicle's center of gravity further back. As a result, driving stability suffers somewhat and the vehicle becomes more susceptible to crosswinds. Braking distance also increases", explains Ancona. "It is therefore important to drive even more carefully and attentively with a loaded vehicle."

### Check marking regulations when traveling abroad

DEKRA recommends that anyone traveling abroad with bicycles on the rear should find out in advance – for example from their automobile club – whether special marking is required on the rear carrier. In Italy, Spain, and Portugal, for example, a white-and-red reflective warning sign measuring  $50 \times 50 \text{ cm}$  ( $20 \times 20 \text{ in}$ ) is mandatory. In Germany, the vehicle with carrier and bicycles must not be wider than 2.55 meters (8 ft 4 in) in total. If the load protrudes laterally more than 40 cm (16 in) beyond the vehicle lights, it must be marked with a red light in poor visibility or in the dark. Depending on the country, a fine of \$ 80 to 200 upwards (ca. \$85 to 220) is payable for infringements.

#### 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 2023, DEKRA generated revenue of EUR 4.1 billion. The company currently employs around 49,000 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.