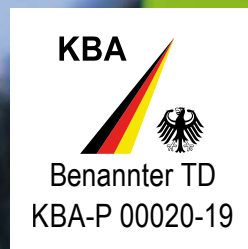


Enhanced road safety –
tested by experts

Bicycle lamp type-approval tests

DLG – your partner in testing
and certification

www.DLG.org





Approved quality enhances safety

The German Road Traffic Licensing Regulations (StVZO) stipulate that bicycles must have type-approved lamps in order to be used on public roads § 67 (1).



DLG is a Technical Service designated by the German Federal Motor Transport Authority (Kraftfahrt-Bundesamt – KBA) and licensed to conduct type-approval tests of vehicles and vehicle parts. In this capacity we offer manufacturers of bicycle lighting and light-signalling devices comprehensive services and support.



We provide support in various ways:

- We offer advice on the manufacturer's initial assessment which is made by the German Federal Motor Transport Authority (Kraftfahrt-Bundesamt – KBA)
- We assist you in obtaining the type-approval (ABG) which is required by § 22a of the German Road Traffic Licensing Regulations (StVZO) in conjunction with the Vehicle Parts Ordinance (FzTV).
- We guide you through the homologation processes for a wide range of technical equipment – including basic vehicle lamps, complex lighting systems with daytime running lamps and high beam functions, regular dynamo-based rear position lamps with/without capacitor powered LED front position lamp and special e-bike rear position lamps with integrated retro-reflecting device and brake lamp function. The lamps can be powered by a dynamo, batteries, rechargeable batteries or the on-board e-bike network.

We conduct regulated tests that are required for obtaining the type-approval (ABG)

According to § 22a of German Road Traffic Licensing Regulations (StVZO), lighting and light-signalling devices on bicycles (StVZO §67) and bicycle trailers (StVZO §67a) must have a type-approval for Germany.

The Technical Requirements stipulate the following test requirements:

- TA 14b rear position lamp tests for bicycles and their trailers
 - Testing luminous intensity distribution
- TA 18 tests for retro-reflecting devices
 - Testing coefficient of luminous intensity
 - Testing water tightness (immersion test)
- TA 18a tests for reflective strips on bicycle tyres
 - Testing coefficient of luminous intensity
- TA 23 tests for head lamps on bicycles
 - Testing illuminance distribution
 - Testing glare-free performance
- The following parameters are tested to the following Technical requirements:
TA 2 General Requirements, TA 3 Terms and Measurement Rules,
TA 4 Structural Requirements, TA 5 Structural Testing:
 - Water tightness (IP test)
 - Corrosion resistance
 - Fuel resistance
 - Temperature resistance
 - Fastening and setting systems and devices
 - Electrical connections
 - Battery or rechargeable battery
 - Dynamo
 - Capacitor powered LED stand light
- The accompanying documents / documentation
- All type-approved parts must bear a type-approval mark as stipulated by the Vehicle Parts Regulation (FzTV) $\sim\sim\sim$ K 1234.

We also offer assistance in the following approval tests:

- ✓ Dust and water-tightness of luminaires and headlights (IP protection class)
- ✓ Impact resistance
- ✓ Electromagnetic compatibility (EMC) according to UN ECE-R 10

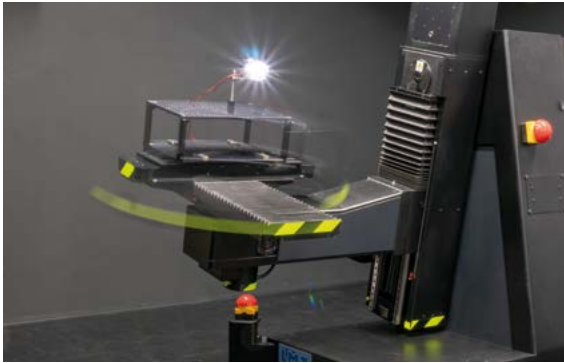
We provide expertise in auditing, testing and certification

The DLG has been testing and certifying equipment and machinery, farm inputs and consumables for more than 130 years.

Apart from applying DLG-specified standards in its tests, the DLG Test Center also offers extensive testing services to quality control standards and to customer-specific R&D requirements.

As a technical service designated by the Federal Motor Transport Authority (Kraftfahrt-Bundesamt – KBA), the DLG tests complete vehicles, systems, components and separate technical units for agricultural or forestry tractors, trailers and trailed implements, but also for motorcycles and light-weight three- and four-wheeled vehicles, passenger cars, buses, trucks and their trailers, making it one of the leading international testing service providers.

All test services are carried out by the DLG TestService which is based in Groß-Umstadt near Frankfurt and also by further agencies on behalf of the DLG Test Center Technology and Farm Inputs.



For type-approval tests of lighting equipment on bicycles, please contact Photometrik GmbH, our partner within the DLG homologation network. Photometrik GmbH is listed as a DLG test site in DLG's designation from the German Federal Motor Transport Authority (KBA-P 00020-19) for type approval testing of lighting and light-signalling devices.

Further homologation services that are available from the DLG Test Center:

Tests

- Whole vehicles
- Mechanical couplings
- Passive safety features

Information: www.DLG.org/bicyclelamp

Contact: photometrik@DLG.org



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