

DLG TestService

DLG chassis dynamometer

Innovative testing technology for tractors and working machines

MORE INFO



- Power and traction measurements
- Consumption measurements
- Data collection and recording
- Simulation of various driving conditions

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TestService

DLG chassis dynamometer – precise testing under real-life operating conditions

The DLG chassis dynamometer with a roller diameter of 2 metres offers practical, precise, reproducible tests for agricultural machinery and commercial vehicles. Whether high drive torques at low speeds or various climate scenarios –

realistic operating conditions can be simulated and precisely repeated in a controlled manner on the DLG dynamometer. This provides you with reliable results that make onroad or offroad driving tests efficient, safe and comparable.



Individually tailored test methods

Power measurements

- Determination of the power on the wheels under full load and in a driving speed range from 0 to 105 km/h forward and reverse
- Performance measurements:
 - Wheel power (up to 700 kW)
 - Power take-off power (up to 700 kW) using a separate load unit
 - Hydraulic power of up to 150 kW by using a separate load unit
- Simultaneous load at the driveline, power-take-off and the hydraulic system
- Either synchronous running of the rollers or the wheels
- Measurement of wheel slip, wheel speeds, various traction power distributions

Data collection and recording

- Temperature measurement: 8 standard channels, more channels on request
- Engine speed measurement: 4 standard channels
- CAN data recording: J1939, ISOBUS

Consumption measurements

- Fuel consumption
- Reagent/AdBlue consumption
- Comparative measurements of performance and consumption using different fuels or lubricants at a consistent room temperature
- Range determination of electric and hybrid vehicles
- Power consumption tests on electric or hybrid vehicles

Simulation of various driving conditions

- Driving simulation, driving cycles, driving profiles according to customer specifications
- Coastdown tests, load adjustment
- Trailer load simulation
- Cooling package testing
- Acceptance tests of engines and gearboxes
- Simulation of uphill and downhill runs
- Endurance brake testing (to German road traffic regulations, UN-ECE regulations or EU directives)
- Simulation of load conditions, up to 10 tons pull-down per axle

Specialists for R&D services

With its chassis dynamometer, DLG offers ideal conditions for testing in support of research and development. Manufacturers can use these to compare prototypes and pre-production models with other products or to optimise them for their intended use.

- Rapid, market-oriented implementation of R&D tasks
- Development of customer-specific test profiles
- Processing individual requirements for differing target markets
- Conformity assessments to speed up approval procedures at the national level



DLG PowerMix for tractors – The premium class for determining energy efficiency

Performance, efficiency and energy consumption are key criteria for investment decisions. The comparability of different performance classes is crucial for tractors. A test method must therefore be able to reproduce performance, efficiency and fuel consumption in practical scenarios.



Based on typical workloads of a tractor in practice, the DLG experts have defined 14 test cycles under which the fuel and AdBlue consumption, the performance and the energy efficiency of the overall vehicle are determined on the DLG roller dynamometer.

Technical specifications

- **Vehicle dimensions and weights**
 - Wheelbase: 2,050 – 6,000 mm
 - Max. vehicle width: 4,500 mm
 - Max. wheel load: 15 t
 - Max. total vehicle mass: 60 t
- **Power take-off load unit**
 - Asynchronous motor
 - Max. output: 700 kW
 - Max. torque:
(left/right hand rotation): 7,000 Nm
 - Engine driven and generator driven
- **Hydraulic load unit**
 - Load applied by a combination of hydraulic and asynchronous motors
 - Max. power applied: 150 kW
 - Max. flow: 500 l/min.
 - Max. pressure: 300 bar
- **Air conditioning**
 - Standard temperature: 25 ± 2 °C
 - Supported temperature range: 15 - 45 °C
 - Face area: 3,000 x 3,000 mm
- **Measurement equipment**
 - Fuel consumption
 - AdBlue/reagent consumption
- **Maximum gate width:**
 - Overhead clearance: 4.90 m
 - Clearance width: 4.53 m
- **Maximum widths on rolling testbed:**
 - Width without frame insert: 5.00 m
 - Width over rollers/tyres: 3.90 m

You have the technology. We deliver the proof.

Information:



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Further DLG TestService testing and service offers:

- Testing services in accordance with OECD Tractor Codes
- PTO power, pulling power, lifting forces, hydraulic power
- Testing of cabs and driver's cabs
- Homologation/type-approvals (EU, UN ECE, StVZO)
- Tyre tests for tractors and trailers
- Certification of lubricants, fuels and additives
- Vibration behaviour of seats for tractors and construction machinery
- Rear underrun protection devices for lorries and trailers
- Drive-by noise measurement, noise at the driver's ear
- Camera monitor systems
- Driver assistance systems
- Conformity assessments

DLG TestService GmbH is one of the leading international test and certification organisations for tractors, agricultural machinery and farm inputs. Our tests are based on the recognised DLG standards supplemented by comprehensive quality assurance in accordance with national and international standards. Our practical test methods are developed and continuously evolved by neutral expert committees. In addition to standardised test methods, we also offer bespoke tests for research and development as well as individual customer solutions. DLG TestService GmbH is an accredited and designated organisation that stands for independent quality in testing and certification services.

An overview of all accreditations and designations can be found at:



DLG TestService GmbH

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