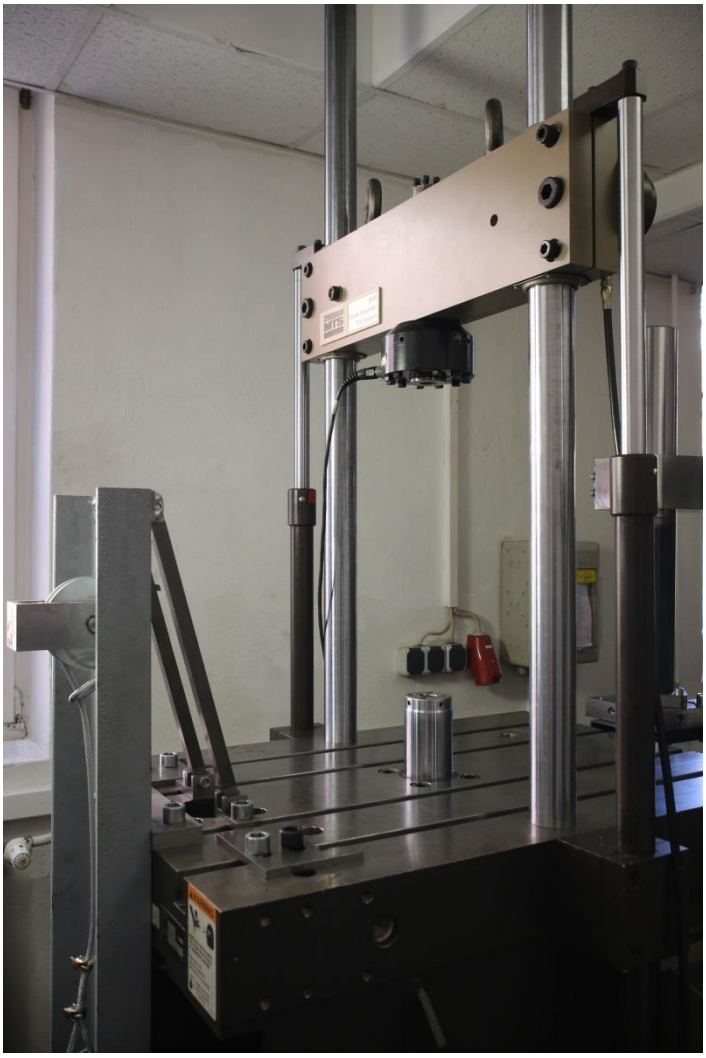
TECHNISCHE UNIVERSITÄT DRESDEN

LKT

1-axle-hydropulser



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Main applications

- Static load test uniaxial
- Dynamic load test
- Determination of static component parameter
- Determination of dynamic component parameter
- Recording of friction force characteristics
- Recording of damper characteristics according to VDA
- Optional: multiaxial static preload

Technical data

Static:

- Load range: +/- 50 kN
- Travel range: max. +/- 125 mm, accuracy 0,01 mm

Dynamic:

- Frequency range: 0 - 100 Hz at approx. 0,5 mm travel range

Specimen

- Dampers
- Elastomers
- Hydro bearings
- Tires
- Tire samples

Characteristics

- Max. dimensions of the specimen:
  L x W x H: 1000 x 533 x 1270 (mm)
- Max. capacity of the testing table:
  100 kN
- Heat chamber for elastomer components with temperature up to 90°C

Location

Fahrzeugtechnisches Versuchszentrum Dresden
Lehrstuhl Kraftfahrzeugtechnik
August-Bebel-Straße 32
01219 Dresden
(https://goo.gl/maps/QwMGh6A6cjm)

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Measured values

- Force: uniaxial, static/dynamic
  3-axial
- Travel: uniaxial
- Acceleration: 3-axial (extension possible)
- Temperatures: PT100

Measurement devices

- Load cells: - MTS 661.20 F-02 50 kN
  - Kistler-load cells 20 kN
- External sensors for measurement of force, position, pressure, acceleration and temperature
- Inductive position sensor included in cylinder

Components of test rig

- Hydropulser MTS 248.05 (adjustable heigth, bracing possibilies)
- Testing table (Load Unit)
- Pressure tanks (pmax = 375 bar, V = 4 l)
- Oil cooler
- Diverse clamping devices: Inside thread M27 x 2
- Measuring computer
- FlexTest 40 – control unit (stimulation: sin - function, ramp, rectangle, rpc-data)
- Control panel in test cell
- Heat chamber for elastomer components (20°C to 90°C)

Software for controlling and data collection

- Measurement/ controlling system: MTS
- Analysis: DIAdem, Matlab, Excel

Available supply in test cell

- Electrical supply 16 A (if necessary 32 A)
- Compressed air 10 bar
- Hydraulic fluid HLP 46

Contact person

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