

IDS Rubber Friction Test Rigs

Reproduced Tire Characteristics in Lab „RepTiL“



Fig. 1: RepTiL test setup

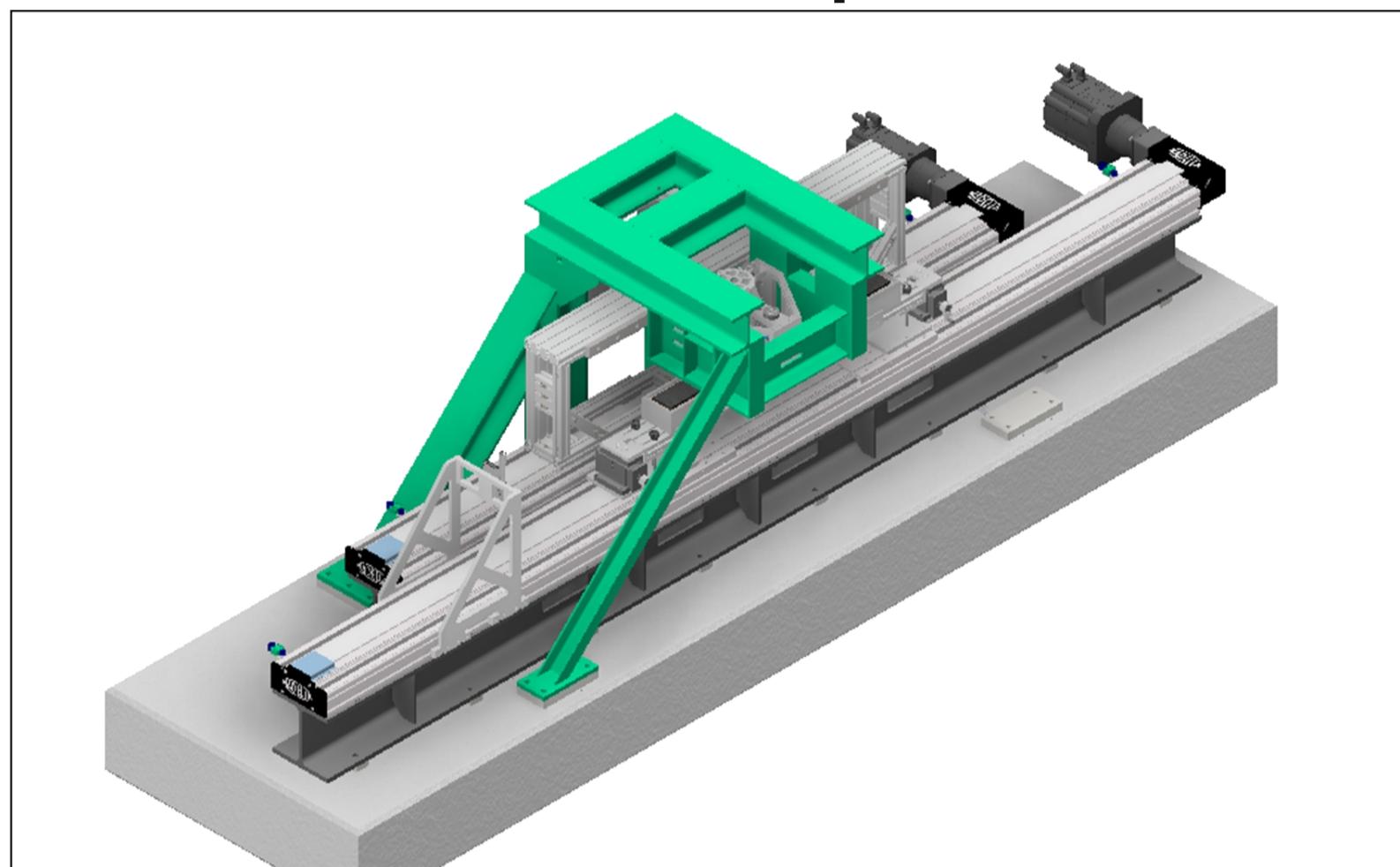


Fig. 2: RepTiL Design

The "RepTiL" is designed to investigate frictional behaviour of rubber samples on a variety of test surfaces.

Properties

- Test samples: Tire tread blocks, rubber samples
- Sliding velocity: 0 ... 1000 mm/s
- Max normal force: 1000 N
- Temperatures: -20 °C ... +40 °C
- Additional equipment: high-speed camera
- Measured values: Fz, Fx, Sample height & rotation, Ambient Temperature &
- Tests on asphalt (wet & dry), Glass, Ice, Snow, ...

High-Speed Linear Test Rig „HiLiTe“

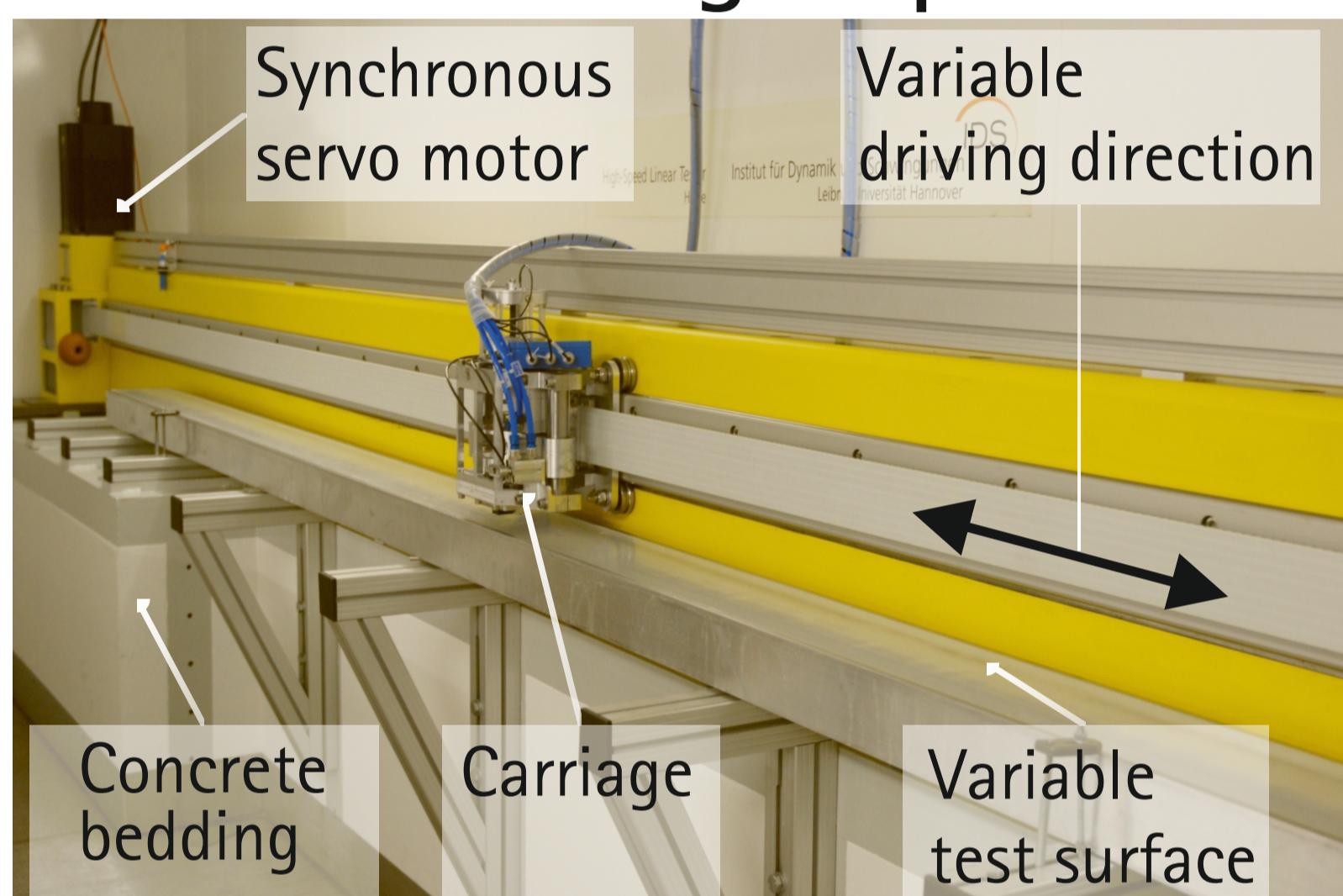


Fig. 2: HiLiTe test setup

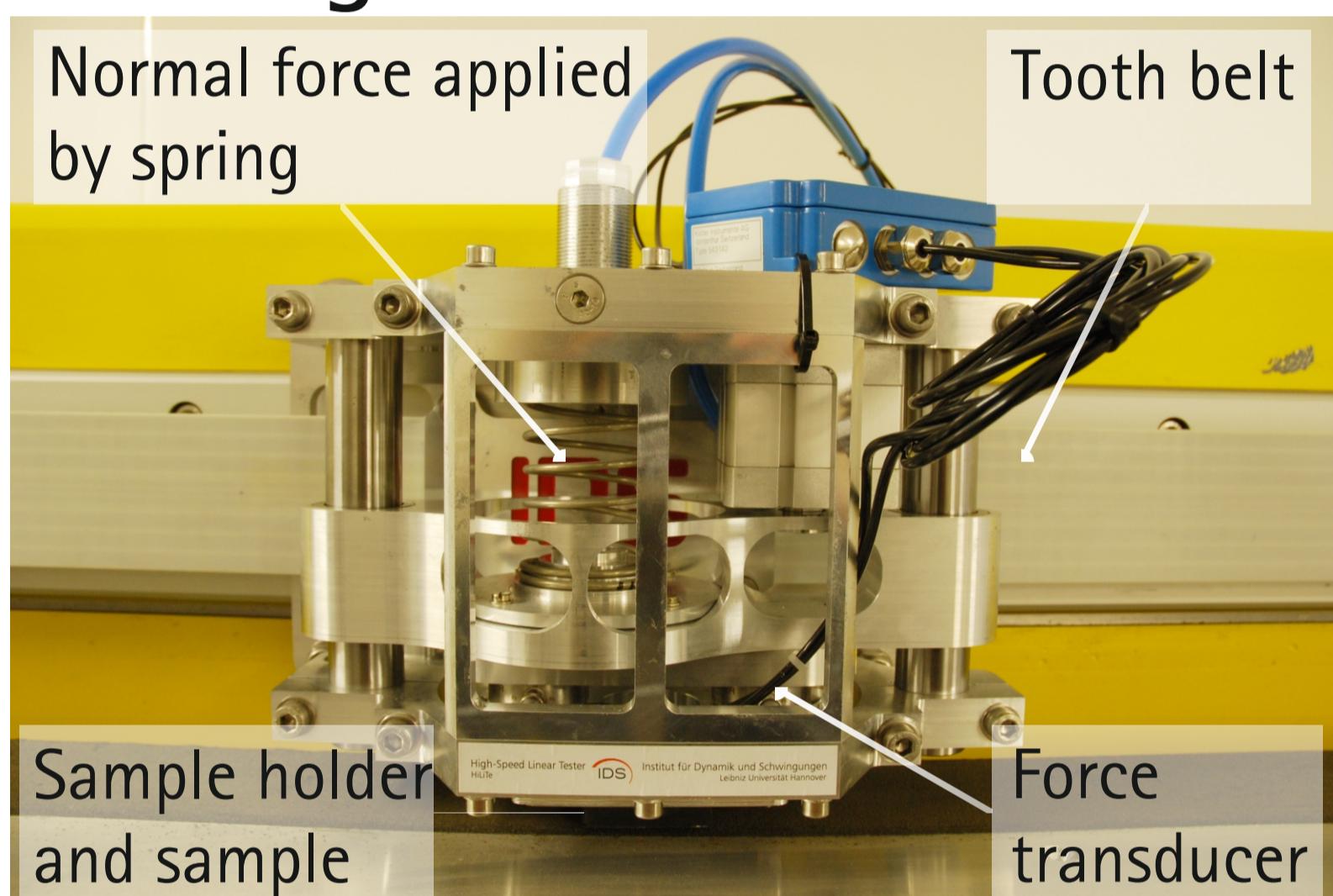


Fig. 3: HiLiTe carriage detail

The "HiLiTe" is designed to investigate frictional behaviour of rubber samples on a variety of test surfaces.

Properties

- Test samples: Tire tread blocks, rubber samples
- Sliding velocity: 0,1 ... 10 m/s
- Normal force: 100 ... 1000 N
- Length of test tracks: 5 m
- Temperatures: -20 °C ... +40 °C
- Additional equipment: Thermal camera, high-speed camera
- Tests on asphalt, concrete, corund, snow & ice possible

Tribometer Test Rig

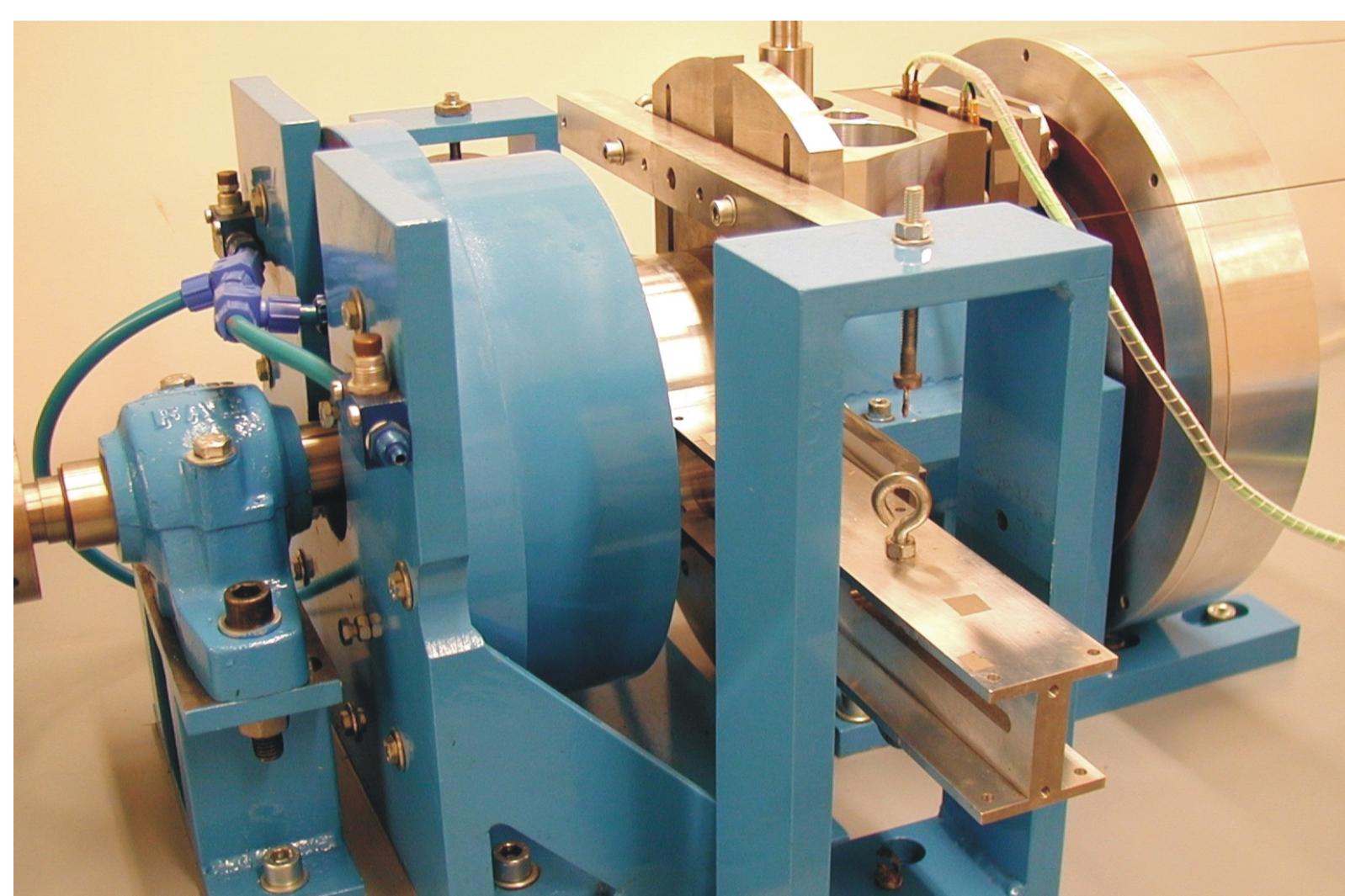


Fig. 4: Tribometer test setup

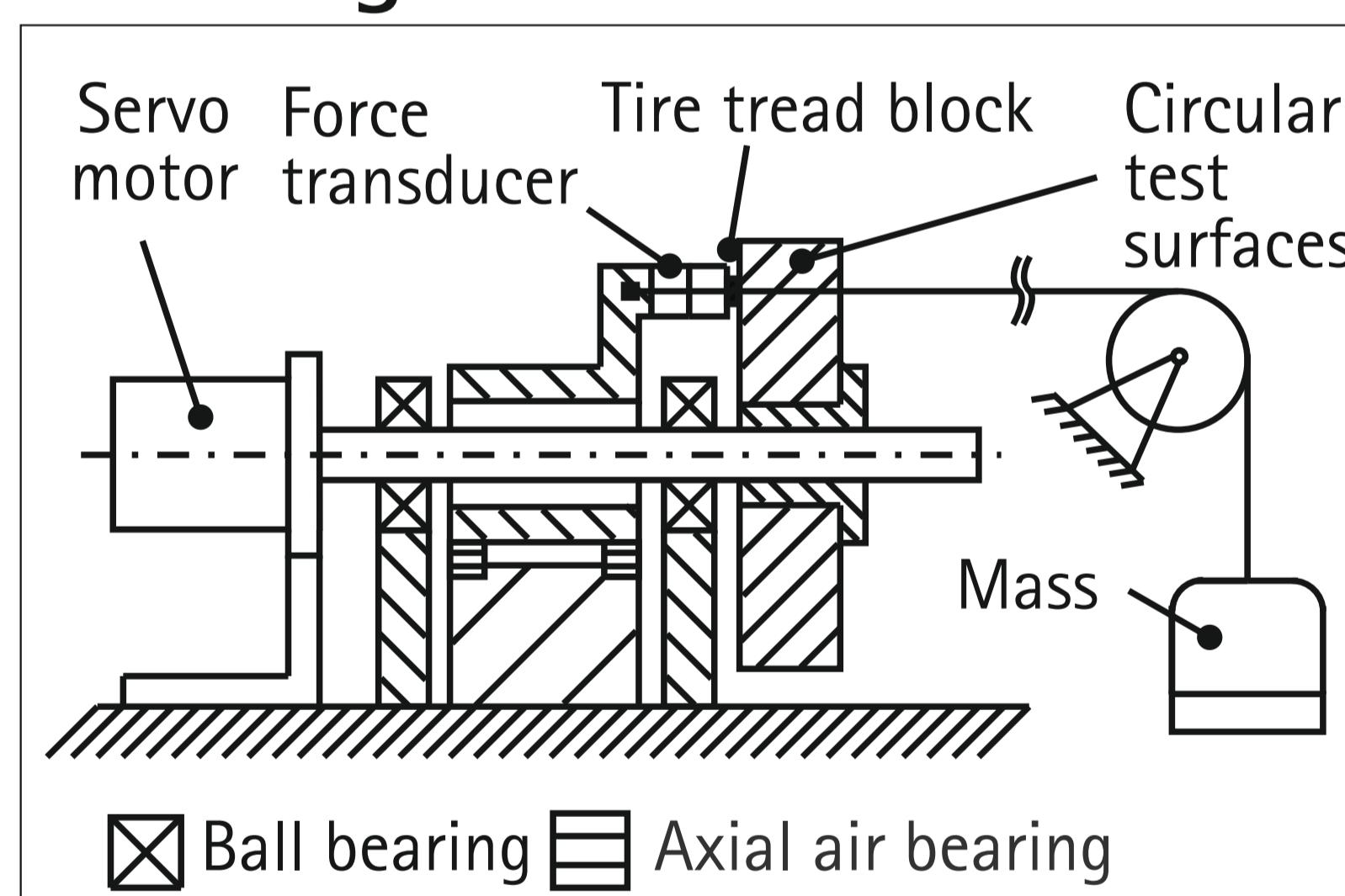


Fig. 5: Tribometer design

The Tribometer Test Rig allows testing rubber samples on a variety of circular test surfaces in a pin on disc configuration.

Properties

- Test samples: Tread blocks, rubber samples, ...
- Sliding velocity: 0 ... 3 m/s
- Normal force: 0 ... 200 N
- Length of test tracks: unlimited
- Additional equipment: Thermal camera, high-speed camera
- Tests on asphalt, concrete, metal, wood, glass possible

Portable Friction Tester "PFT"

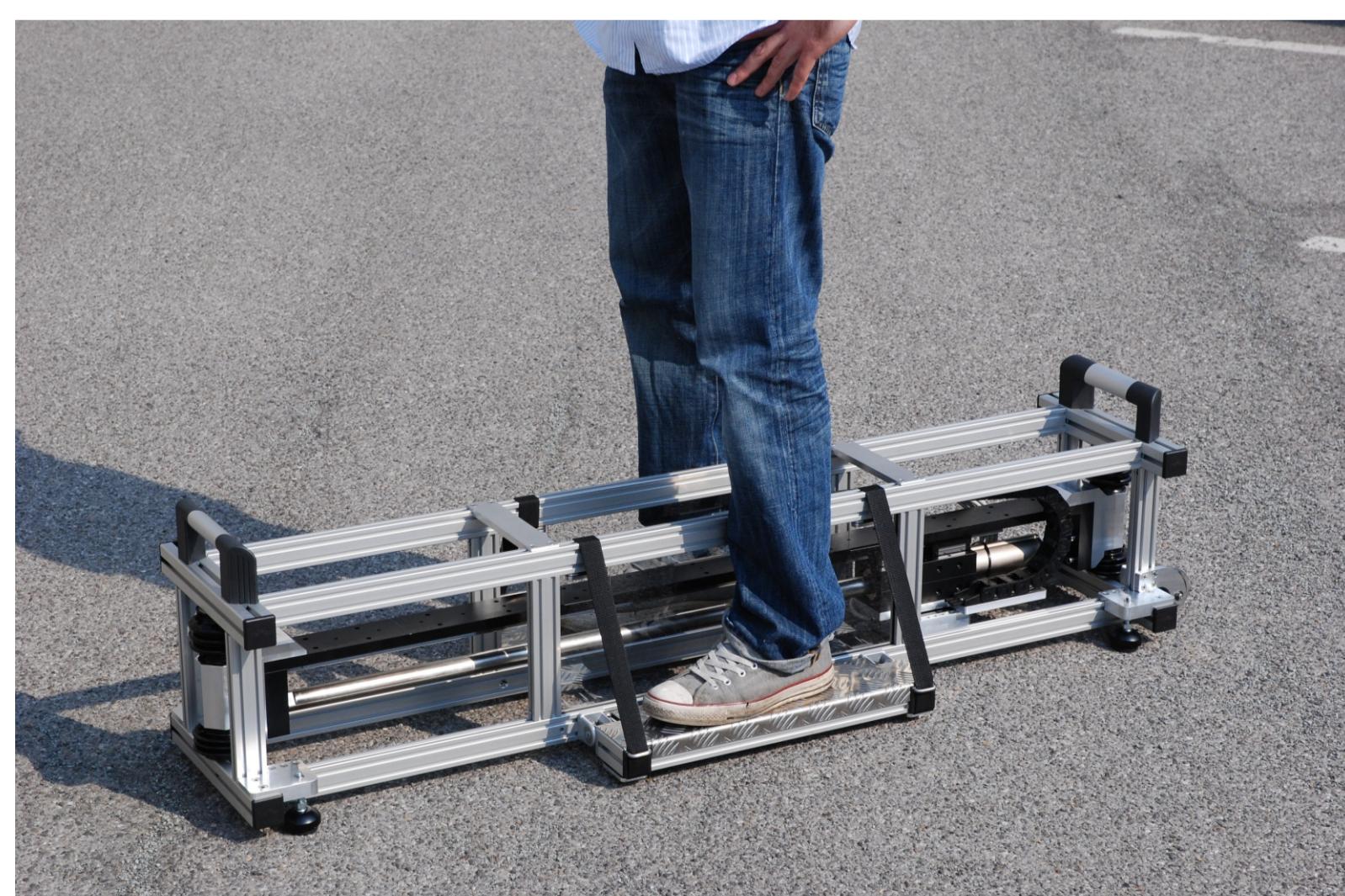


Fig. 6: Portable friction tester in use

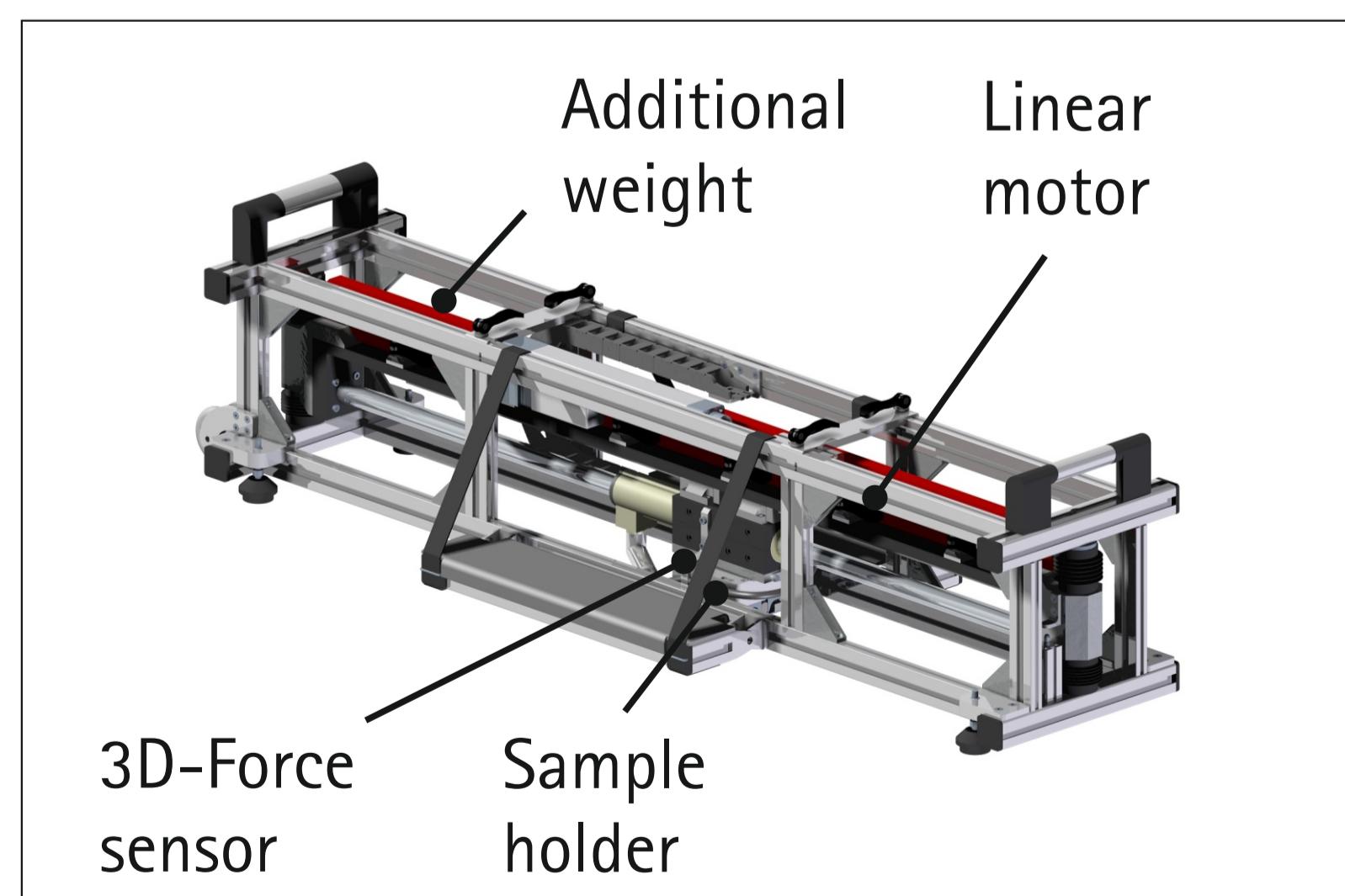


Fig. 7: Portable friction tester design

The "PFT" enables outdoor testing of rubber samples. This way friction characteristics of roads, test tracks and scenes of accident can be determined.

Properties

- Test samples: Tread blocks
- Sliding velocity: 0 ... 3 m/s
- Contact pressure: 2 ... 3,5 bar
- Length of test tracks: 0,91 m
- Weight: < 40 kg
- Outdoor tests on roads & test tracks
- Stabilized by operator's weight

