

GEKON

Measuring trolley for rail corrugation

The GEKON Trolley is a measuring device intended for contactless measuring of the corrugation of grooved and UIC rail. It can be used for rail head microgeometry assessment.







The GEKON Trolley is able to measure a series of continuous track sections, evaluate the acquired data and compute the results being complied with the standard EN 13231-3. For the measurement, the GEKON uses two versines with laser sensors placed vertically to the longitudinal axis of the rail.

TROLLEY DESIGN

The GEKON consists of a hand-operated measuring unit and external computer (tablet or notebook). The measuring trolley includes laser sensors with the necessary drive and electronic units that transfer the acquired data to a computer. The correct position in the rail is ensured by wheels and rollers on both sides and a beam equipped with springs.

The complete trolley is lightweight and compact. It is very easy to remove the trolley and return it to the track in a few seconds. It is therefore possible to take the measurement on the track during uninterrupted traffic.

For transportation is the trolley easily dismountable into two basic parts. Both parts and all equipment can be placed into the transport box with wheels.

MEASURING PRINCIPLE

The GEKON Trolley is equipped with measuring software. During the signal processing the following operations are performed:

- filtering of outlying peaks
- filtration by 375 mm wheel radius filter

After the measuring, collected primary data are transferred from the measuring computer into any PC computer.

Evaluation software computes all filtered data using following blocks for signal processing:

- calculation of half overlap average spectrum
- calculation of peak-to-peak values
- calculation of effective (RMS) values

ON BOARD COMPUTER

The GEKON Trolley stores the acquired data into an on-board computer in special format. The software installed in the on-board computer images the course of the measured signal during the data acquisition.

THE BASIC TECHNICAL DATA

8,7 kg and 6,3 kg
15 kg
1122 mm x 409 mm x 356 mm
4-8 hours
1 m/s
5 mm
1 μm







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