



RWT

VAL track recording trolley

RWT Trolley is a special designed diagnostic tool of the tracks dedicated to guiding of the rubber wheel vehicles. The trolley is equipped by contact and contactless electronic sensors measuring the critical geometry dimension of the track.



RWT Trolley is equipped by contact and non-contact electronics sensors to measure the wide amount of critical geometry dimensions of the track structures. The data acquisition technology is analogical to the same one widely used in railway track recording trolleys KRAB.

TROLLEY DESIGN

Mechanical construction of RWT trolley is light and partially dismountable into 2 main separate parts and 3 small parts for easier manipulation. The setup of the equipment to track and/or remove from track takes less 10 minutes.

The measuring trolley is equipped with four double wheels of diameter 125 mm vertically and four single wheels of diameter 100 mm horizontally.

The trolley is provided by two laser non-contact heads (3D cameras) using a triangular measuring principle to measure the shape of the running face of H rail and the height of the lower edge of H rail above the plinth.

THE BASIC TECHNICAL DATA

Mass: approx. 100 kg

Battery: removable Li-ion

5 hours of measuring without charging

Max. measuring speed: 10 km/h

ON BOARD COMPUTER

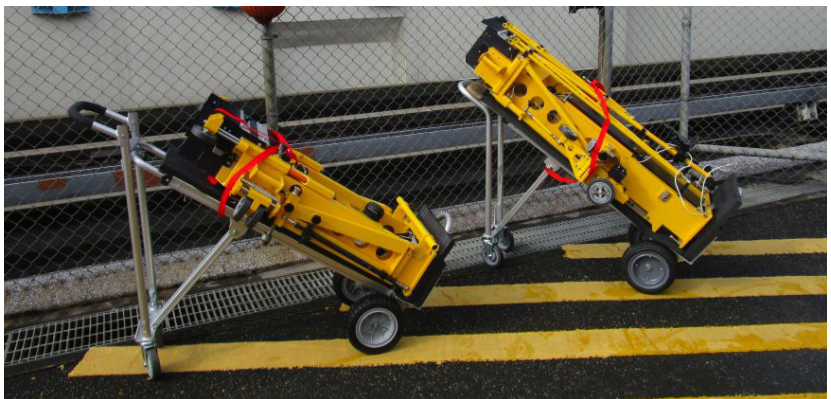
Measured data and camera records are synchronized in on-board computer together with the position in the track and final profile is recalculated to a track axle. The continuous results are displayed at a touchscreen of a control computer in a real time during the measurement. The data can also be compared in real-time with a chosen normalized profile that is loaded in the computer.

Measured data are automatically stored on an internal hard disc of on-board computer and it is possible to display them anytime later.

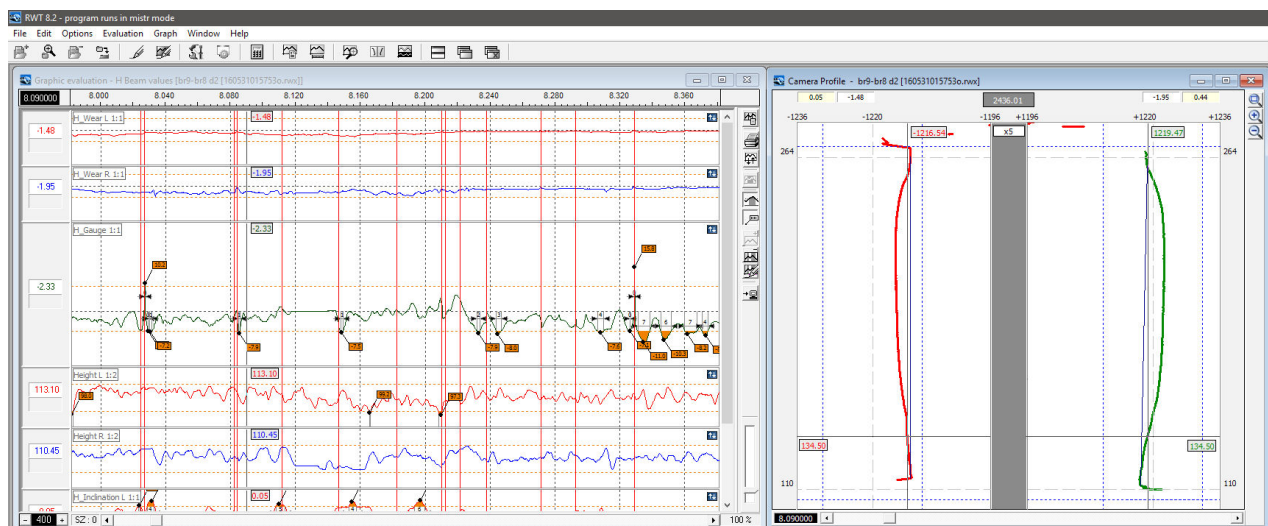
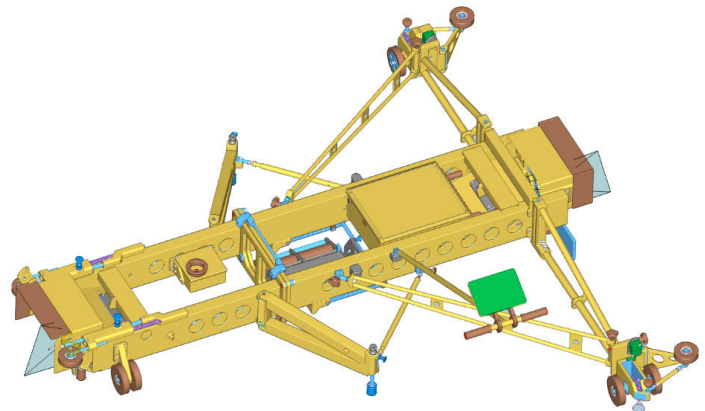
ASSESSMENT OF THE COLLECTED DATA BY RWT8.2 SOFTWARE

After the measuring, the collected raw geometry data are transferred from the on-board computer into any PC computer. Sophisticated assessment software computes so called actual geometry via FFT (Fast Fourier Transformation) technique. Thus the following items are available:

- **Guiding H beams** - Gauge, Inclination, Height above plinth, Wear, Alignment, Top (10 m chord), Profile (10 m chord)
- **Plinth** - Top (10 m chord), Cant, Twist, Gaps between plinth and H beams
- **Switch Guide Rails** - Groove, top, Gauge



Dismounted two basic parts of RWT Trolley on special hand-pushed trolleys for easier transportation.



Commercial railway research

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