

Measurement module “Radial/Axial Run-out”



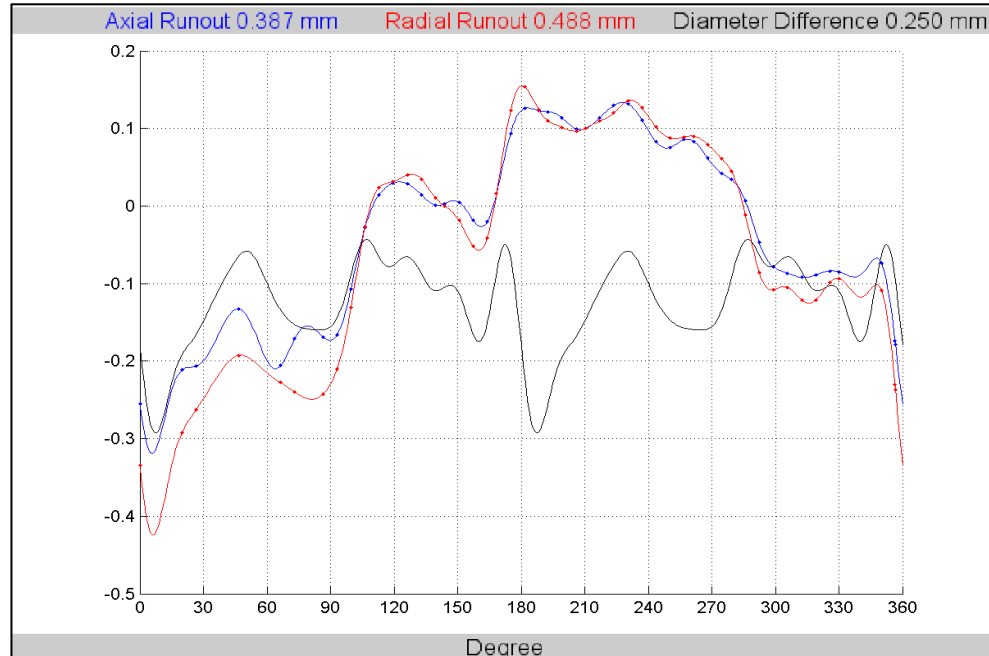
1 APPLICATION

With the “Radial/Axial Run-Out” module, it is possible to precisely measure the ovality and eccentricity and to detect lateral runouts of rail vehicle wheels. With the CALIPRI sensor, the user captures the radial and the axial relative movements of the wheel profile during a wheel rotation. Diameter changes (diameter differences on one wheel) are determined through the automatic combination of the measurement data on opposite sides of the wheel. The measurement results can subsequently be exported as a CSV file and can be assigned to a certain wheel lathe.

In addition to the comparison of measurement values with relevant reference values, an additional spectrum presentation of the captured data allows for more in-depth analysis to check for any polygonization of the wheel.

The “Radial/Axial Run-Out” module includes a V-shaped trigger wedge (IK1), which is to be attached to the inner side of the wheel – within the rolling circle diameter – and which enables the conformal allocation of the measurement data.

Measured variables:



Measurement method “RunOut”

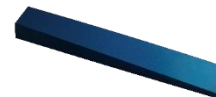


2 TECHNICAL DATA

Compatibility	CALIPRI C41, CALIPRI C42
Accuracy	Absolut accuracy: < $\pm 30 \mu\text{m}$ Repeatability: < $\pm 20 \mu\text{m}$
Requirements	Rigid alignment of sensor relative to axle bearing (a.o. by sensor holder) & Uniform rotation of the wheel during the measurement
Dimensions	Axial runout AR Radial runout RR Diameter difference DD
Product ID	CMM1008

3 SCOPE OF SUPPLY AND SERVICES

- Software license measurement module "Radial/Axial Run-Out"
 - 1 measurement method (RunOut)
 - In case of supplementary order: activation via remote access
- Trigger wedge "IK1"
 - Magnetic supporting gauge
 - Enables a conformal allocation of measurements
- Sensor holder
 - Tripod for CALIPRI sensor with ball head and magnetic holder



Trigger wedge "IK1"



CALIPRI sensor with the holder and the trigger wedge

4 MEASUREMENT PROCESS

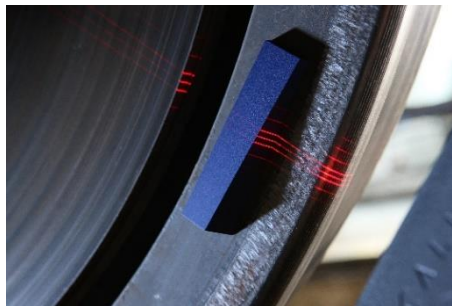


Mount sensor on tripod

AND



Adjust with tutor



Fasten trigger wedge & start measurement



Turn the wheel evenly



Measurement result (sensor)

AND



Measurement result (tablet PC)

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