

Bearing test bench (BTB)

This unique device designed to test performance of axle bearings is powered by an electric motor that can simulate speeds of up to 300 km/h. The radial load on the tested bearings is realized by means of static hydraulic actuators and the axial load is variable in time according to ČSN EN 12 082.

Many projects of our customers have already been tested on our bearing test bench. Based on the experience gained, we have implemented new processes and techniques, which have fundamentally impacted the efficiency and overall precision our work.

WHAT IS TESTED:

- › Axle bearings
- › Bearing chambers
- › Lubricants and other components

TEST BENCH BASIC PARAMETERS:

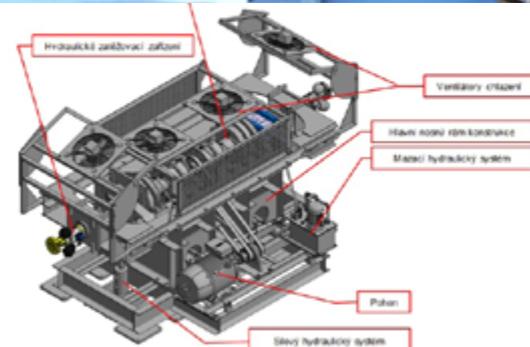
- › Tests according to ČSN EN 12 082
- › Testing speed of up to 300 km/h
- › Radial load of up to 30 t/axle
- › Axial load \pm 30 kN

BTB OPTIONS AND ADVANTAGES:

- › The bearing test bench construction consists of 2 synchronously driven separate shafts. In the event the support bearing fails, it can be replaced without the necessity to dismantle the bearings under test and thus spoil the test.
- › The tests are carried out under temperature of 20 ± 2 °C, in a room provided with 3 powerful air conditioning units.
- › Data collection is performed in real time every 100 seconds.
- › Tests are controlled automatically by a computer; the software allows control of both the bearing test bench and the so-called scenario modes.
- › BTB is located on a fully sprung block to eliminate disruptive external influences that could affect the testing process.
- › The support bearings are cooled by lubricating bearing oil with its own cooling circuit, which eliminates excessive heating of the support bearings and thus the thermal effect on the bearings under test.

Contact:

Výzkumný Ústav Železniční, a.s.
Novodvorská 1698/138b, 142 00 Praha 4
+420 241 493 135
www.cdvuz.cz



REFERENCES:

- › Schaeffler Technologies
Tests of high speed bearings
F– 579610.02.TAROL 150/250
- › Çağlayanlar Otomotiv Tic.
ve San. | Tests of bearings TIMKEN
NP912615SA
- › OZ-AR IC VE DIS TICARET
PAZARLAMA LTD STI | Tests
of bearing chambers BA182