



research bridges railways tunnelling monitoring technology management international

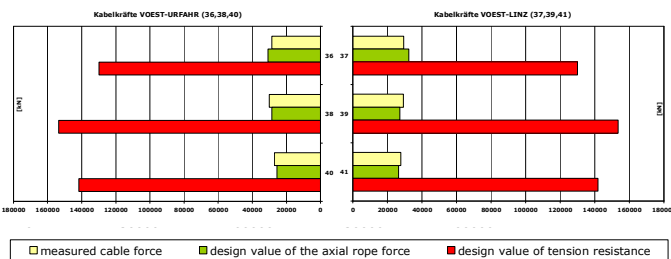
Voest bridge Linz

The Voest bridge Linz across the Danube is part of the motorway A7 and was built between 1969 and 1972. The cable-stayed steel bridge consists of four spans and has a total length of 407 m. While the three shorter spans are 60 and 72 m long, the main span has a length of 215 m. The width of the bridge deck is 34.86 m and its overall height is approximately 4 m. The cross-section consists of four main steel girders and an orthotropic deck plate.

In the course of the prevailing investigation a dynamic monitoring campaign was undertaken in order to determine the vibration behaviour of the cables as well as the global condition of maintenance of the bridge deck (the structure's integrity) by means of BRIMOS®. Along with the conventional bridge assessment this investigation supports the determination and localization of potential problem zones based on the measured structure's vibration behaviour.

The investigation in 1999 is to be understood as an initial measurement, the follow-up measurement was performed in 2008.

- Client: ASFINAG Autobahn Service GmbH Nord
- Location: Linz, Austria
- Checking Period: 1999 – 2008



Comparison of the measured cable force, the design value of the axial rope force and the design value of tension resistance

BRIMOS® Services conducted:

- | | | | | |
|------------------------------|--|--|---|--|
| Lifecycle Management: | <input checked="" type="checkbox"/> Condition Assessment | <input checked="" type="checkbox"/> Condition Monitoring | <input checked="" type="checkbox"/> Rehabilitation Planning | <input type="checkbox"/> Quality Control |
| | <input type="checkbox"/> Lifetime Assessment | <input type="checkbox"/> Traffic Analysis | <input type="checkbox"/> Environmental Influences | <input type="checkbox"/> Risk Assessment |
| Special Measurements: | <input type="checkbox"/> Attendant Monitoring | <input type="checkbox"/> Noise and Vibrancy | <input type="checkbox"/> Deflection Measurements | <input type="checkbox"/> Seismics |