



Bearing and Joint Inspections to DIN 1076



Importance of inspections

Bearings and expansion joints are important parts of a bridge. When joints or bearings are damaged, the integrity of the entire structure could be affected as a consequence. This could affect road safety as well as the stability and overall durability of the structure. Therefore, every structure should be inspected on a regular basis, to detect deficiencies, damages, and their causes in time, so that the damage can be rectified at minimal cost.



Purpose of inspection

mageba is your competent partner for inspections. Therefore, bearing and joint inspections are always performed by experienced technicians.

The purpose of the inspection by mageba is:

- determination the actual condition of bearings and expansion joints
- early detection, marking, and recording of defects, deficiencies or irregularities
- investigation of defect causes, and development and testing of refurbishment concepts
- concepts and detailed design for load-increasing possibilities
- testing and confirmation of practicability of changes in bearings and expansion joints in a structural system
- designing bridge enhancements and preparation of relevant concepts



Bearing inspections

As soon as the access to bearings has been secured, we normally carry out the following measurements and inspections:

- general visual inspection
- measuring of displacements, deformations and rotations, in order to make conclusions on loss of bearing capacity
- detection of irregularities
- inspection of various bearing parts and welding seams on cracks
- checking the tightness of connections (screws, bolts)
- checking the sliding gap and the sliding surfaces
- checking the corrosion protection
- knocking off adjacent concrete surfaces in the bearing area, in order to detect hollow spaces



Joint inspections

During a joint inspection, the condition of joints is usually only evaluated visually from the top. Detailed inspection of a joint expansion is carried out from the bottom, so that the traffic does not have to be rerouted.

The following measurements and inspections can be carried out:

- general visual inspection
- measuring of displacements, deformations, and rotations
- inspection of various steel joint details (cross beams/lamellas) on cracks
- inspection of existing elastomeric details on cracks and defects
- checking the tightness of the structure
- checking the corrosion protection
- checking the surface condition in the joint edge area



Inspection report

After each inspection, we prepare a report with precise description of the defects of the inspected parts and their causes. Digital photos are made to document the results. If required, the report also gives instructions on safety measurements to be implemented, and detailed proposals for further refurbishment.

mageba products



Bridge Bearings

- Pot Bearings
- Elastomeric Sliding Bearings
- Elastomeric Bearings
- Spherical Bearings
- Incremental Launch Bearings
- Special Bearings



Expansion Joints

- Single Gap Joints
- Modular Joints
- Sliding Finger Joints
- Cantilever Finger Joints
- Matt Joints
- Railway Joints
- Structural Engineering Joints



Shock Absorbers

- Hydraulic Shock Absorbers
- Spring Dampers



Services

- Inspections
- Testing
- Installations
- Refurbishments
- Cleaning
- Remote monitoring

More information on mageba and its products can be found on www.mageba.ch.

Version 2008.02