

Hochheim Railway Bridge (Germany)



Project description

The Hochheim Railway Bridge, which crosses the Main River near Frankfurt, was built between 1901 and 1903 with four structurally independent arches. After a long history that included extensive reinforcement of the structure in 1936, it was partially destroyed in 1945. The bridge was rebuilt in 1946–1947, and almost 120 years after the original construction, renovation work was carried out again, which also included the replacement of eight bearings.

A time-critical challenge of this project was the two track closures that had to be observed, during which Deutsche Bahn had to suspend the railway traffic. A further challenge arose from the difficult accessibility of the bearings. To tackle this, a pontoon with push boats were used, onto which the complete equipment for the construction site was shipped in advance.

mageba scope

mageba designed and produced a total of eight RESTON®SPHERICAL bearings. This product was chosen because of its high load absorption capability and the possible torsion angles it can facilitate.

The bearings were installed upside down so that the sliding movement and thus the eccentricity occurs in relation to the substructure. On the existing four superstructures, the longitudinally movable bearings with (KE3.3) and without (KA3.5) transverse restraints were replaced on one bearing axis.

With the new mageba bearings, the Hochheim Railway Bridge is well equipped for future use.

Highlights & Facts

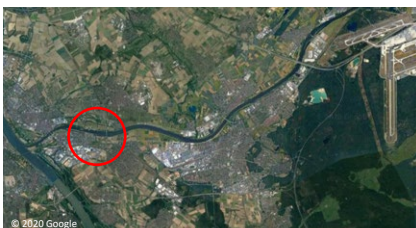
mageba Product:

Type: RESTON®SPHERICAL bearings
Installation: 2020

Structure:

City: Hochheim
Country: Germany
Type: Tied arch bridge
Built: 1904
Main span: 293 m
Length: 561 m
Owner: Preußisch-Hessische Eisenbahngemeinschaft
Contractor: DB Netz AG, Regionalbereich Mitte
Architect: Johann Caspar Harkort

The structure crosses the Main River at Hochheim



Pontoon at the moorage



A RESTON®SPHERICAL bearing after installation

