

Ijssel Bridge (Netherlands)



Project description

The new Ijssel bridge was designed with the goal of replacing the old Hutch-Deck bridge located in Zwolle, the Netherlands. With a longitude of more than 1'000 m the new railway bridge shall improve the connectivity of the railroad system of the north-east axis. Design of superstructure is based on 18 independent segments. 18 axis equipped with spherical bearings types KA and KE support the complete superstructure. The main bridge span, with a length of approx. 150 m, allow the continues ship traffic improving the past traffic conditions.

Delivered products

For this project mageba supplied 36 RESTON®SPHERICAL bearings types KA and KE. Bearings were produced at mageba's

The Ijssel Bridge is located near Zwolle in north-eastern Netherlands



100 % mageba-owned subsidiary mageba-Shanghai. Design requirements demanded bearings which should be able to take vertical loads up to approx. 62'000 kN, horizontal loads of 20'000 kN and movements of 1'050 mm. The largest bearing weighted approx. 5'000 kg. Design of bearings were carried out for each bearing independently in order to better suit client's requirements. Superstructure is supported by 19 piers. On one axis adjacent to the river, the Bridge superstructure is fixed to the pier through a monolithic connection. On all other axis piers are equipped with respectively one KA and one KE bearing allowing bridge's dilatation along both abutments at each end of the bridge. Design of bearings started in December 2009. In order to fulfil client's requirements, bearings were produced and delivered in 4 batches. The first batch arrived at the jobsite in March 2010.

The new railway bridge during construction



Highlights & facts

mageba products:

Type:	36 RESTON®SPHERICAL type KA and KE
Features:	max. v-load 62'000 kN max. h-load 20'000 kN max. mov. 1'050 mm
Installed:	2009

Structure:

City:	Zwolle
Country:	Netherlands
Built:	2008–2010
Type:	Truss bridge
Length:	926 m

The installed RESTON®SPHERICAL bearings allow movements of over 1'000 mm

