Flamatt Viaduct (Switzerland)

Project description

The Flamatt Viaduct (Viaduc de Flamatt) was constructed in the 1960s to carry Switzerland's A12 autobahn across a valley near the capital city, Berne.

The viaduct itself is a 13-span structure, which required twelve roller bearings to accommodate the bridge's movements and uniaxial rotations.

Due to their age and the condition, the original roller bearings, that were supplied by mageba in the 60s had to be replaced.

mageba scope

Rather than replacing them with similar roller bearings, mageba recommended the use of the company's current alternative – the RESTON®LINEAR bearing, which has a far higher radius at the curved rotation surface to reduce the pressure arising and which facilitates longitudinal deck movements by sliding at a dedicated sliding interface rather than by rolling.

To avoid heavy civil engineering works, our team proposed to retain the existing upper and lower bearing plates – a decision that then necessitated some ingenuity to make the design work, with the new bearings installed "upside down" to better suit the geometry of the connecting steel.

Having designed and fabricated the new bearings, mageba's local installation team carried out the replacement works on site, including lifting the viaduct superstructure at each axis using hydraulic jacks, and injection of a special void-filling compound following installation in order to ensure even transmission of force.

Highlights & facts

mageba products:

Type:	RESTON®LINEAR bearing
Feature:	Special multi-metal void-filling compound on bearings
Installation:	2024

Structure:

Country:	Switzerland
City:	Berne
Owner:	Federal Road Office (FEDRO)
Contractor:	GVH Tramelan

The bridge is located near the capital of Switzerland, Berne

Placing of a new RESTON®LINEAR bearing in position

The voids between the bearing and the substructure / superstructure were injected using a special compound

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