

Ghotour Bridge (Iran)



Project description

Ghotour Bridge is a railway bridge over the Ghotour River in West Azarbaijan province, north-western Iran. It is a steel arch bridge, and its construction was completed in 1970. It has an overall length of 443 m, with the longest span being 223 m. In the 1980s it withstood airstrikes during the Iran-Iraq war.

During the planning of seismic retrofitting works to be carried out in 2014-2015, it was decided to add shock absorbers to dampen transverse oscillations. This type of damper is becoming ever more popular for use on structures in seismically active zones such as Iran.

mageba scope

mageba supplied a total of 20 RESTON®SA shock absorbers for installation on the bridge – 16 on the lower part and 4 for the deck – to control the bridge's transversal movements. The 16 dampers for the lower part were each designed for a force of 990 kN and a stroke of +/- 100 mm at velocities of up to 880 mm/s, while the 4 dampers for the deck were designed for a force of 680 kN and a stroke of +/- 250 mm at velocities of up to 1600 mm/s.

For the purposes of quality control, factory production control testing was carried out in accordance with the European standard EN 15129.

Highlights & facts

mageba products:

Type: RESTON®SA shock absorbers
Force: Up to 990 kN
Stroke: Up to +/-250 mm
Testing: Factory production control, to EN 15129
Installation: 2015

Structure:

Province: West Azerbaijan
Country: Iran
Type: Steel railway bridge
Completed: 1970
Length: 443 m
Main span: 223 m

The bridge crosses the Ghotour River in West Azarbaijan Province, north-western Iran



A RESTON®SA shock absorber, excluding connection fittings at each end



Parts of the RESTON®SA shock absorbers as fabricated, prior to assembly of the dampers

