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Sarens completes 'heaviest ever' bridge-by-road move

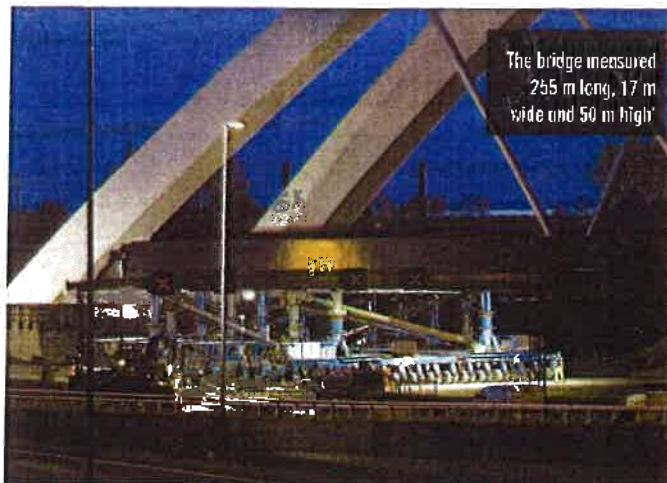
Belgium headquartered heavy transport and rigging specialist Sarens played a crucial role in the installation of an 8,400-tonne bridge span for a highway upgrade project in the Netherlands in May.

The SAAone consortium was awarded a EUR1 billion (USD1.1 billion) contract to build, upgrade and operate a section of the A1 and A6 highway between Amsterdam and Almere. A part of this contract required the construction of two complex bridge structures – an aqueduct and a railway bridge.

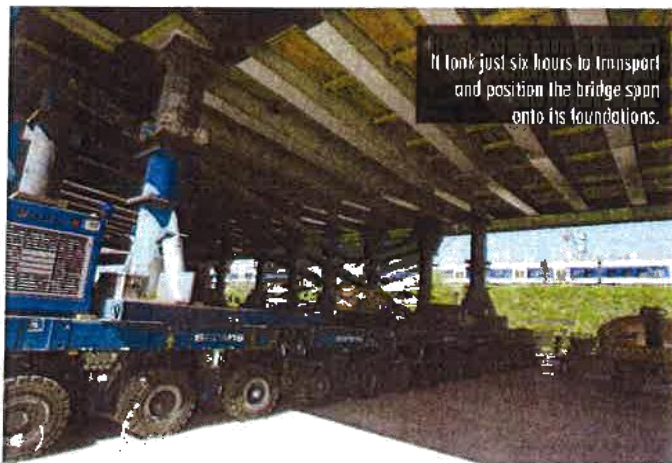
Contract

Belgian steel manufacturer Victor Buyck Steel, on behalf of SAAone, tasked Sarens with the movement and placement of the railway bridge, which in addition to the huge weight, measured 255 m long, 17 m wide and 50 m high.

Sarens stated that this was the heaviest bridge ever moved by road and by far the longest single-span bridge across a motorway. Once assembled, the bridge had to be moved 400 m to the correct site over the highway.



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It took just six hours to transport and position the bridge span onto its foundations.

The A1 is one of the Netherlands' busiest roads, carrying about 200,000 vehicles per day. To minimise

disruption to the public, the installation was scheduled to take place at night; the highway was closed from 20:00

on Friday May 6 until 12:00 on Saturday May 7.

A total of 244 axle lines of Kamag K2400-ST self-propelled modular transporters (SPMT) were mobilised to transport the bridge section. Of these, 122 axle lines were spaced 220 m apart; the high forces created by the size and weight of the bridge, in addition to the large span between the SPMT groups, made it particularly challenging to design a sufficiently strong supporting structure, said Sarens.

Single operator

Furthermore, just one operator controlled the entire SPMT combination using a wireless data connection – the first time that such a connection has been used between SPMT groups over such a long distance.

"It was really imposing to watch, particularly from close up when those enormous wheels began to move," stated Henk Voerman, a Dutch transport ministry spokesperson.

Thanks to careful planning and execution, just six hours were required to transport and position the bridge span onto its foundations, enabling the motorway to reopen three hours ahead of schedule.

Work continues on the construction project, which is scheduled to be commissioned during August 2016.