



The assembly and replacement of the Weesperbridge

J.C.A. (Anne) Blom

Projectleader Movares
Utrecht, The Netherlands

Anne Blom, born 1978, received his civil engineering degree from the Technical College in 's-Hertogenbosch. He works for Movares on steel and concrete bridge projects.



B.H. (Bert) Hesselink

Consulting Engineer,
Movares
Utrecht, The Netherlands

Bert Hesselink, born 1965, received his civil engineering degree from the Technical College in Enschede. He holds a degree of Professional Master in Structural Engineering and works for Movares on steel bridge projects



A. (Arjen) Steenbrink

Structural engineer,
Movares
Utrecht, The Netherlands

Arjen Steenbrink, born 1982, received his civil engineering degree from Delft University. He works for Movares on steel and concrete bridge projects.



Contact: anne.blom@movares.nl

Summary

In The Netherlands the long closing of main roads and major waterways are unacceptable due to economic reasons. So swapping of the old Weesperbridge for the new one, must be completed within eight hours. Also the transportation is a problem of the new bridge in a densely populated country as The Netherlands. This is a challenge that the design engineers have to deal with while searching for a method to swap the two bridges in a short period of time.

To realize the transport the new bridge must be transported in two sections. The first section is the arch and the second is the bridge deck. The engineers must make sure that the structures remain stable during all steps of the construction.

For the installation within one night, the strength and stability must be checked in all steps of construction. This results in the following measures:

- To reduce stresses in the arch and the main girder temporary columns were placed between the towers;
- The pendants needed added supported to prevent buckling;
- The flange of the main girder is strengthened around the temporary bearings to reduce stresses;
- Around the temporary bearing by the girder web, stiffeners were added to prevent plate buckling.

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