



Principal: BAM (Beheersmaatschappij Antwerpen Mobiel)
Main contractor: THV Roegiers-Depret-Victor Buyck-Egemin
Execution period: 2010
Machine: AVN
Pipes: reinforced concrete with steel core
ID-OD: 3.000 mm - 3.480 mm
Length: 175 m + 225 m
Soil type: glauconite sand (Antwerpiaan)

Renovation of the lock complex of Van Cauwelaert

The lock of Van Cauwelaert with a length of 270m and a width of 13m, was taken into service on August 13th 1928 by King Albert I. A 'big sister' named the Boudewijn was born in 1955. The old lock desperately needed a modernisation after all those years. Easier said than done: The piece of art surely plays a crucial role in the sailing entry.

Nevertheless the tight timing of 38 months from which 15 months out of service- the assignment was executed. Cost price was about 70 million Euros. The toughest job happened underground, being the construction of the 400 meter long pipeline tunnel with inner diameter of 3m under both locks.

Thanks to the renewed lock complex, which accounts for 1 third of the inland shipping, the problem long waiting hours has now disappeared.



Pipelines tunnel

Starting from the central jacking pit, two pipe jackings DN 3.000 x 3.480 mm were carried out in line with each other between both locks. They had to run horizontally under the locks by which all working activities, inclusive departure and arrival had to take place at a depth of more than 30m underneath the ground level.



The pipes all have a steel core connected by welding after the pipe jacking is finished in order to drain a watertight tunnel. At such depths a standard concrete wall of 24 cm is not sufficient enough to guarantee watertightness because of the water pressure.

The project was executed by Smet-Tunnelling to the full contentment of the client.