

MARSTON DOLES LOCK REBUILD OXFORD CANAL, WARWICKSHIRE

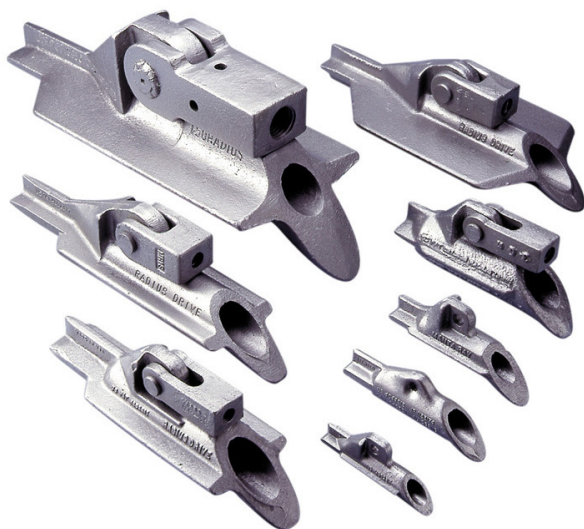
Client: **British Waterways**
Installer: **Greenford Civil Engineering Contractors**

Requirements

The retaining wall of Napton Top lock, on the Oxford Canal at Marston Doles in Warwickshire, had begun to bow significantly, impeding narrow boat traffic and threatening to totally collapse.

In order to reinstate the wall and provide long term structural stability, British Waterways decided to sheet pile the wall to retain the ground.

Having successfully completed other similar projects, the well proven Duckbill mechanical ground anchors were selected by British Waterways to secure the sheet piling due to their long term corrosion resistance, rapid installation and ability to accept immediate high proof loads as no grout curing time is involved.



The Duckbill anchor range with the large SR1 Stingray pictured top left

Solution

The lock was completely drained to allow Greenford Civil Engineering, working under difficult conditions, to install the sheet piling and drive in the 15 Duckbills.

The stainless steel SRI Stingray anchors with Ischebeck hollow bars were installed at an angle of 30° to a depth of 9m into the stiff clays. The anchors were terminated with wedge discs plus load plate and nuts and set to a proof load of 180kN.

The old wall was taken down and, for decorative purposes, a new wall was built in front of the piling to complete the lock restoration.