

Gladstone Dock Limpet Dam

Client :
Mersey Docks & Harbour
Company

Location :
Liverpool

Date :
2007



Limpet in operation

Gladstone limpet dam is the latest in a long line of dams that went into full operation at Gladstone Dock on the 14th January 2007. The limpet is the largest dam that Nuttall John Martin have operated, with dimensions of 7.5m wide x 3.7m deep x 17.4m high.

The Limpet was designed to access the bottom pintles on both sides of the lock gate in Liverpool Harbour, therefore the structure needed to be reversible. Once the pintles were restored in one corner of the lock, the Limpet was taken out of the water. The lifting frame and the base of the dam were detached and reattached at the opposite end of the inverted dam to fit the profile of the opposite lock corner before re-entry.

Construction of the limpet

The dam was constructed by welding 6 modules together (6.7m x 3.0m x 2.4m) then adding the two base modules (7.5m x 3.7m x 2.7m). The limpet dam was also fitted with a detachable and reversible internal staircase, vent tube, external ladder, access staircase, access platform and four pumps.

Previous limpet dam designs have included enlarged bases to allow drilling rigs, installation of ground anchors and repairing of sheet piles.