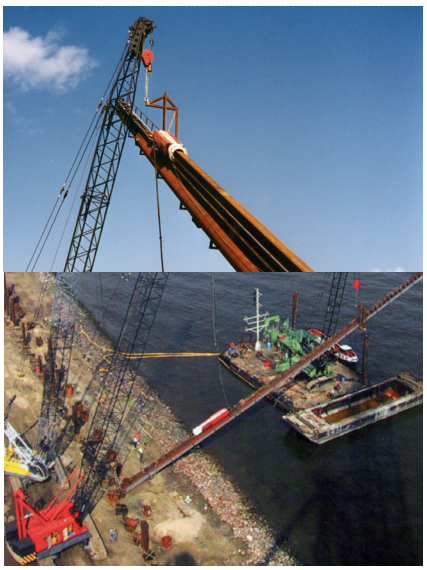
COMBINATION WALL

PORT OF HAMBURG, GERMANY (2001)

Contractor F R Holst understood the benefits offered by the HPH6500 hydraulic hammer when they chose to use one on their project in the port of Hamburg, Germany.

The vibrator was used to install the AZ18 sheet piles but the tieback piles had to be installed using the Dawson HPH6500 mounted on a suspended lead system. The special guide sleeve was exchanged for a standard anvil and retainer set-up that permits the hammer to driven a vast array of bearing piles mounted to numerous lead designs.

Work began in early in 2001 with the caissons being driven using a PTC vibrator supplied by Dawson's German distributor Robb Baumaschinen GmbH. However, the vibrator was unable to drive these piles to specified depth and the HPH6500 was called in to finish drive. A special guide sleeve was produced by Dawson so as to permit the hammer to fit around the sheet pile interlocks welded to the outside of the caissons.



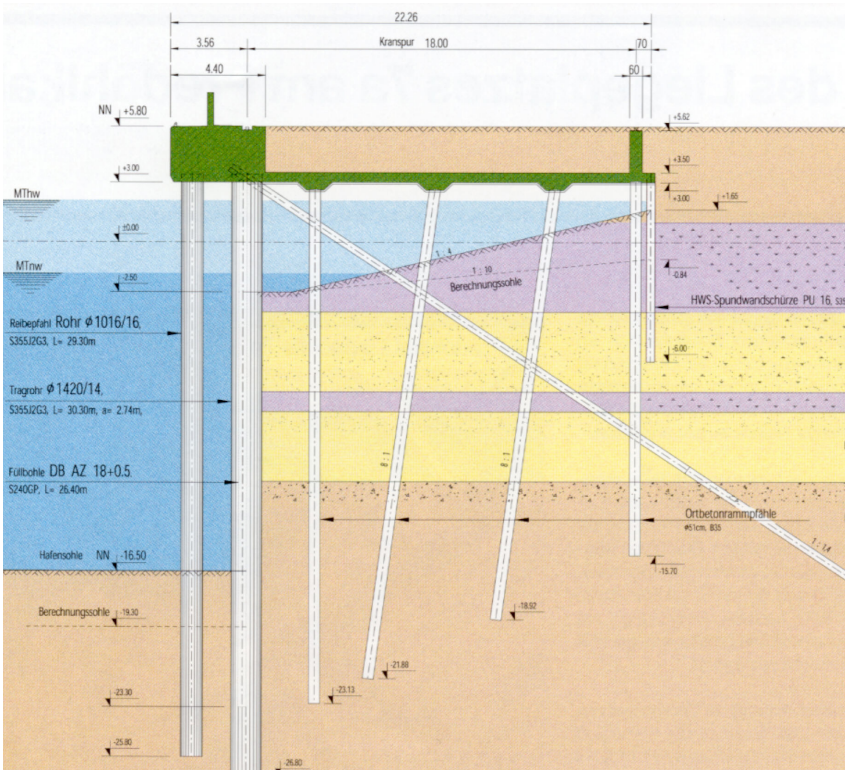
Technical Specifications

Holst needed to drive a continuous combination wall of Æ1420mm x 30.3m caissons and interlocking Arbed AZ18 sheet piles up to 25.4m long. The entire wall was to be tied back with 47m long HP400/122 kg/m H-piles driven at a rake (batter) of 1:1.4 (32° to the horizontal).

Summary of Soil Conditions

Layer	Depth Range of Soil units (m BML)		Soil Description
	Top	Base	
1	0.0	1	Mixed soil
2	1	3.5	Rock
3	3.5	4.5	Sand
4	4.5	8.5	Rock
5	8.5	12	Sand
6	12	-	Sand / Gravel / stones

CROSS SECTION



ADVANTAGES OF USING HAMMER

- **Unrivalled production rates - rapid blow rates save time and money, shortening project duration**
- **Rapid blow rates - "chisel" through compacted sands, out-driving heavier, slower hammers**
- **High energy transfer efficiency to the pile - smaller hammer outperforms older more cumbersome equipment**
- **Variable energy output - stepless adjustment between limits at the touch of a button, with single or automatic blow regulation, these hammers offer complete control of the driving process**
- **All hydraulic operation - omitting electrical components results in simple, robust hammer design**
- **Compact, enclosed design - simplifies application and handling whilst protecting vital components**
- **Simple integration with alternative power sources - can be operated from hydraulic excavators, hydraulic crawler cranes or non-Dawson hydraulic power packs**

DAWSON CONTRACT PILING LTD
Our Expertise is your Solution

Dawson Contract Piling Ltd
Chesney Wold,
Bleak Hall,
Milton Keynes,
MK6 1NE, England
Tel: +44 (0)1908 240300
Fax: +44(0)1908 240222
www.dcpuk.com