

Job Report

Piling and Drilling Rig **LRB 18 with DBA 80**



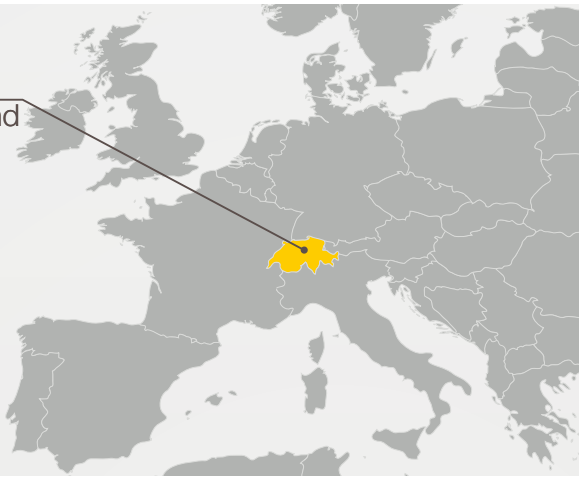
"The compact design, quick availability and simple handling of the LRB 18 have convinced me."

Daniel Kunz

Director and co-owner, Birchmeier Spezialtiefbau AG

LIEBHERR

Lucerne
Switzerland



Situation

When building in extremely limited spaces, the right choice of construction machine plays a decisive role. On the one hand, sufficient room for manoeuvre is required to carry out the work, and on the other hand, adjacent buildings and also persons may not be endangered in any way. The Swiss company Birchmeier

Spezialtiefbau AG in Lucerne is faced with this problem for a current project. A secant pile wall must be erected as a lining wall for the foundation pit and piles must be installed for the foundation of residential and business premises in an extremely tight space.

Implementation

Birchmeier Spezialtiefbau AG decided to use the Liebherr piling and drilling rig, type LRB 18, to carry out the work. The machine is a real all-rounder and can be deployed for all piling, drilling and vibration applications. It convinces with its compact design and its low operating weight of only 50 t, which results in low ground pressure. The LRB is fitted with a double rotary drive type DBA 80. Due to the extremely high groundwater level on the jobsite the double rotary drilling is the perfect method

for installing the piles, which have a diameter of 510 mm and a depth of 16 m. Despite the difficult conditions the Liebherr machine achieves several piles per day. The piling and drilling rig is being used in combination with a Liebherr concrete pump type THS 80 D. Furthermore, the construction company has already planned the newly designed vibrator type LV 20 and the hammer type H 6 from Liebherr for future applications.

Advantages

The LRB 18 is fitted with a new cabin concept, which especially focuses on increased operator comfort. This is achieved through a modern air-conditioning system, an optimized view from the cabin, as well as an orthopaedic operator's seat with automatic adjustment. The compact LRB 18 can be easily transported in one piece with mounted counterweight. This ensures quick

set-up on site as well as flexibility in transferring the machine between different jobsites. Daniel Kunz, director and co-owner of Birchmeier Spezialtiefbau AG, emphasises the advantage of the compatibility with other Liebherr machines, "Since we already have an LRB 125 from Liebherr we can interchange the attachments quickly and so remain flexible."

Technical Data: LRB 18 – Double Rotary Drilling

Operating weight:	50.9 t
Max. torque:	120 kNm
Max. crowd force:	200 kN

Engine power:	390 kW
Max. drilling depth:	16 m
Max. drilling diameter:	620 mm