

An All-round Machine for Deep Foundation Applications: the New Piling and Drilling Rig LRB 16 from Liebherr

- Compact piling and drilling rig with high stability and innovative cabin design
- Wide range of applications for common piling and drilling methods
- Various assistance systems ensure precision and high operator comfort

Nenzing (Austria) June 2017 - Liebherr presents its new piling and drilling rig type LRB 16 suitable for the diverse requirements of deep foundation work. It convinces with its compact design as well as a range of available assistance systems, which ease the work on the jobsite. With a longer leader, the piling and drilling rig is also now available as a LRB 18.

Liebherr presents the LRB 16, which is an all-round piling and drilling rig for diverse applications within the deep foundation sector. The machine gets its name from the sledge's travel distance, which is approximately 16 m. Special emphasis is on the compact design of the LRB 16 with an operating weight of barely 48 t, which results in low ground pressure. The robust undercarriage offers excellent stability, which can be further increased with the optional rear supports.

Economic fuel consumption is more than just a theory with the LRB 16. Innovative hydraulic concepts play a decisive role and, despite reduced engine power, the machines achieve high performance but at the same time keep fuel consumption low. The new piling and drilling rig is installed with a Liebherr diesel engine. It has a mere 390 kW/523 hp and meets with the currently valid emission regulations. In comparison to earlier models, the LRB 16 has a reduced engine speed of about 1,700 rpm.

The proven parallel kinematics, which have been installed in many piling and drilling rigs from Liebherr, have a large working area and enable the leader to be folded back. The rigid leader of approximately 12.5 m absorbs high torque and is fitted with a rope crowd system for high pull forces of up to 200 kN. Furthermore, the quick connection system allows for the rapid fitting or exchange of working tools.

The LRB 16 can be easily transported in one piece, including mounted counterweight, and has a transport weight of only 43.5 t. This ensures quick set-up on site as well as flexibility in transferring the machine between different jobsites. As an option the complete loading and set-up processes can be carried out via remote control, which means only one person is required.

High Operator Comfort Through Cabin Design and Assistance Systems

The cabin concept of the LRB 16 is also worth a mention. Particular attention was paid to the improvement of operator comfort. This was achieved, amongst other things, through a modern air-conditioning system, an optimized view from the cabin as well as an orthopaedic operator's seat with automatic adjustment. All switches, joysticks and pedals are ergonomically positioned. Furthermore, a roof railing as well as rear-view and side cameras enhance safety.

As a standard, the new piling and drilling rig is fitted with sophisticated control and assistance systems. Attachment recognition offers not only time recording for the respective attachment. The performance figures are also transmitted with the aid of LiDAT, Liebherr's own data transmission system. An improvement for slurry wall application is the obstacle recognition, which enables the timely recognition of obstacles in the soil. This protects both the attachment and the basic machine. Cruise Control is available for automatic drilling processes and allows for values such as pull-down speed and rotational speed to be programmed in advance.

One of the most frequent types of application for the LRB 16 is the installation of slurry walls with the aid of Liebherr's vibrator type LV 20. Additionally, the machine is suitable for other common foundation work including drilling with continuous flight auger, double rotary head or Kelly bar, soil mixing, and piling work with a hydraulic hammer.

Captions

liebherr-lrb16-rendering.jpg

Rendering of an LRB 16 with vibrator installing a slurry wall.

liebherr-lrb16-luzern.jpg

LRB 16 drilling with double rotary head on a jobsite in Luzern, Switzerland.

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