At Bauma 2016 Liebherr presents the LRH 600 piling rig with a new hydraulic free-fall hammer

* Perfect combination of new attachment, innovative leader concept and high-performance basic machine
* LRH 600 based on different basic machines available soon worldwide
* First hammer developed and manufactured by Liebherr for tough piling operations on various construction sites

Munich (Germany), 11 April 2016 – With the hydraulic free-fall hammer H 10 L, Liebherr presents an innovation for the world of deep foundations at Bauma 2016. The successful tried-and-tested crawler crane model LR 1300 with attached fixed leader system serves as the basic machine. The LRH 600 piling rig is particularly suitable for tough piling operations with large radius.

With the H 10 L, the first hydraulic free-fall hammer developed and manufactured in-house, Liebherr consolidates its position as a full-service provider in the deep foundation industry. The hammer is currently the largest model of three in the new series and has a maximum impact energy of 225 kNm. Key advantages of the attachment include the modular weights, whereby the hammer can be perfectly adapted to the respective piling requirements. Thanks to the short and lightweight design, the hammer is extremely efficient as well as user-friendly in terms of transportation and maintenance. At the same time, the pile helmet is soundproof in the standard version.

The innovative control is perfectly integrated in the system of the Liebherr basic machines. This allows for better adjustment in accordance with the respective conditions and thus ensures more efficient operation. In addition to the LR 1300, the duty cycle crawler crane HS 895 HD can also be used as a basic machine. Only a slight modification is required with both machines. Owing to the high engine power of these basic machines, the hammer can be operated directly from the on-board hydraulic system, thus no additional power pack is required.

Innovative leader concept

The leader elements of the LRH 600 impress with easy and quick assembly by means of pin connections. A high degree of stability is ensured through the lattice boom design and also by the fact that the kicker is secured via supporting tubes at the boom head. Two compensating cylinders ensure that the leader always remains parallel to the uppercarriage so providing maximum transmission of the torque. Inclination and radius can be adjusted using another pair of cylinders.

With a fixed leader the LRH 600 achieves an effective working length of 51 m and a maximum radius of 15 m. Thanks to the clever leader kinematics inclinations of up to 14° backwards and 9.5° forwards are possible. The pull force extends to roughly 120 t.

The modern concept of the new fixed leader enables an extremely diverse application range, thus covering some of the most common processes in deep foundation applications. In addition to piling work with a hammer or a vibrator, these applications include drilling operations with continuous flight auger or down-the-hole hammer, as well as diverse procedures for soil improvement such as soil mixing and cutter soil mixing.

Crane bestseller as carrier machine

With the LR 1300 the most popular Liebherr crawler crane in the 300-tonne category is used as a carrier machine. The crane is powered by a 390 kW / 530 hp Liebherr diesel engine. A significant advantage is its quick transport. The innovative self-loading and self-assembly system, consisting of four fold-out jack-up cylinders on the undercarriage, an assembly cylinder in the A-frame for unloading, as well as two counterweight cylinders at the rear of the basic machine, make a huge contribution here. The dimensions of the LR 1300 also permit the cost-effective transportation on standard low-loaders with a maximum transport width of 3 m.

Captions

liebherr-lrh600-h10l-piling-rig-rendering.jpg

Rendering of the new Liebherr piling rig LRH 600 with new hydraulic free-fall hammer

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