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Job report

# LRH 100.1 unplugged

Karlstad, Sweden  
[www.liebherr.com](http://www.liebherr.com)

## LIEBHERR

Deep foundation





The piling rig LRH 100.1 unplugged is one of the latest models in the electrically driven unplugged series from Liebherr. Fitted with a hammer H 6, it has found its first jobsite in Sweden.

The company Hercules Grundläggning AB is using this model to drive nearly 300 concrete piles into the ground and is very satisfied with the first performance.

## The piling rig

The LRH 100.1 unplugged excels with its large working range. A radius of up to 8.7 metres has the advantage that the machine does not have to be constantly moved. The design of the leader enables inclinations of up to 18° in all directions. Furthermore, it is also possible to raise or lower the leader by 4 metres (e.g. when working in a foundation pit), which makes the machine even more flexible.

One exceptional feature of the electric drive concept is Zero Emission. The unplugged machines of this series do not produce any exhaust fumes and are extremely quiet. This strikes the right note especially in noise-sensitive regions and finds favour with construction site personnel.

The electro-hydraulic drive of the LRH 100.1 unplugged has the same performance specifications as the conventional version. Both are operated in the same way, which is especially convenient for machine operators if they often have to switch between machines.

## The hammer

For the piling work, Hercules Grundläggning AB has equipped the LRH 100.1 unplugged with a Liebherr hammer type H 6. The hammer is modular and can be used with drop weights of between 3000 and 6000 kilogrammes, depending on requirements.

“Here, we are using a free-fall hammer, i.e. it is not accelerated. We only compensate for the power loss with the cylinders. This has the advantage, especially when driving concrete piles, that these are not damaged as much as when using accelerated hammers,” explains Liebherr’s Product Manager Michael Rajek.

Depending on the length of the pile, between 800 and 1500 strokes of the hammer are necessary for each one. In only 10 to 20 minutes, the machine operator from Hercules Grundläggning AB can lift the pile and drive it into the soil. “The control system is designed in such a way that the operator can now adjust the pile-driving energy and the number of strokes independently of each other, and thus ideally adapt to the conditions.”

The hammer used by Hercules belongs to the latest generation in the series. “We have more or less changed the whole architecture of the existing H 6 hammer. The new steel construction is specially designed for stiffness, longevity and for reliability.” The noise reduction on the jobsite due to the battery-powered piling rig has also continued with the new hammer. “We have a soundproofed pile helmet and pile helmet guide.” Due to the redesign of the hammer, the noise emission has been reduced by about 35 per cent.

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**Michael Rajek**  
Product Manager



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in first operation - YouTube

