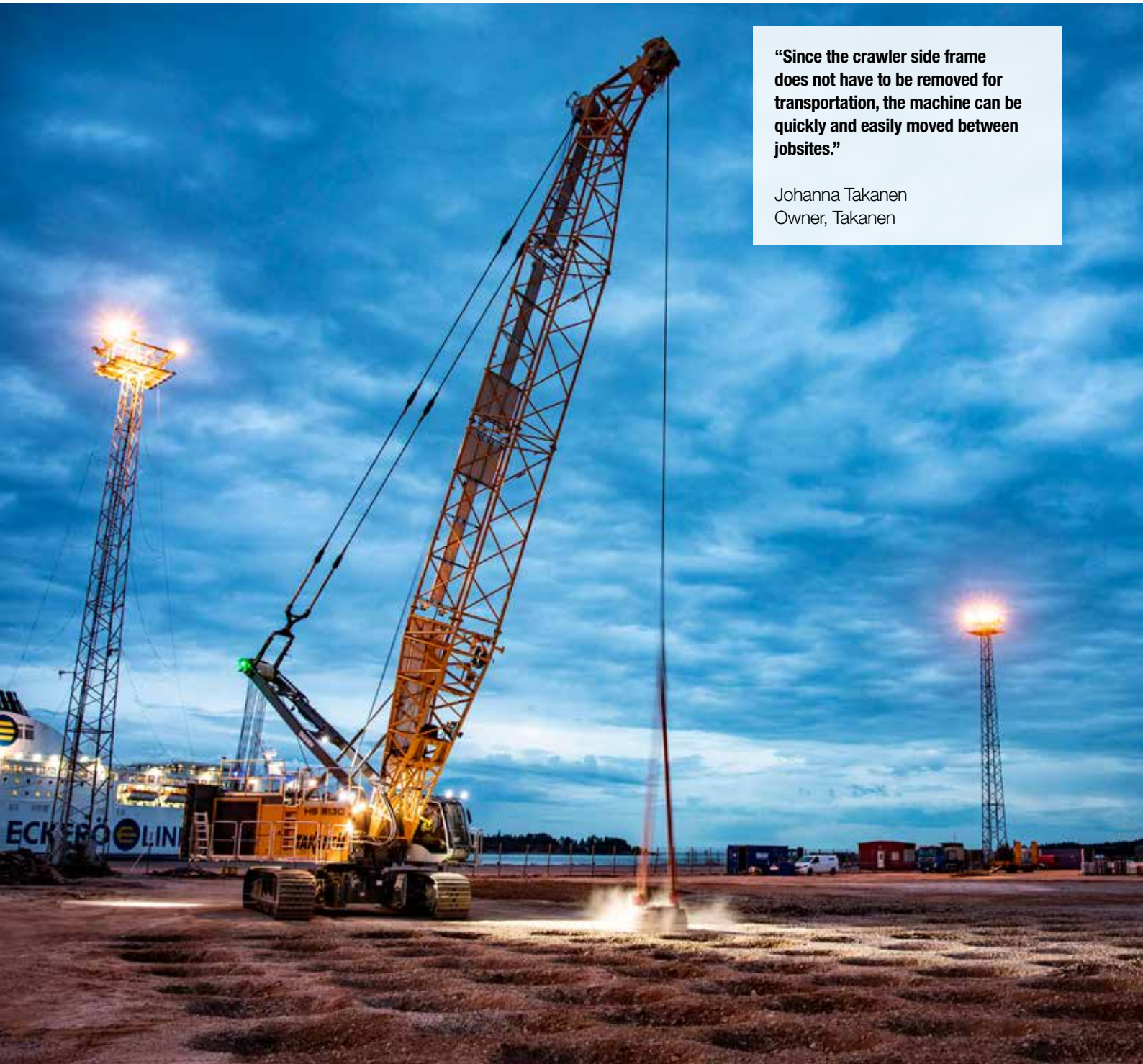


Job Report

Dynamic Soil Compaction with HS 8130 HD

“Since the crawler side frame does not have to be removed for transportation, the machine can be quickly and easily moved between jobsites.”

Johanna Takanen
Owner, Takanen



LIEBHERR



Situation

Jätkäsaari is a peninsula in the south of Helsinki and, up to 2008, it was the most important container port in the city. In 2009, when the pop singer Madonna was on stage there as part of her “Sticky and Sweet Tour”, 85,000 fans flocked to Jätkäsaari. It was the largest concert ever in the Nordic

countries. At that time, the expansion of the harbour also began. Most harbour activities were transferred further east to Vuosaari, while in Jätkäsaari apartments for 21,000 people will be built by 2030. Schools, playgroups and sport facilities will also be developed, as well as 6,000 jobs created.

Application

In order to improve the soil conditions, the Finnish company Takanen is applying the Liebherr duty cycle crawler crane HS 8130 HD with a 14-tonne dropweight. The weight was dropped from a height of 10 m in free fall onto the building area to be compacted. This achieved an impact between 50 and 70 kN/m² and compacted the ground down to a depth of 7 m. The weight hit the ground 110 times per hour, about 50,000 times during the whole project phase. The duty cycle

crawler crane is fitted with an optional piling control, which controls the lift and the free fall fully automatically and avoids unwanted unwinding of the rope. Takanen filled the funnel-shaped craters created through the impaction with new soil using the Liebherr crawler tractor PR 736 Litronic. Subsequently the dynamic soil compaction started all over again. This process was repeated four times on the 25,000 m² building site.

Advantages

The HS 8130 HD is brand new in the Takanen fleet, which in the meantime comprises about 50 machines. Thanks to the reliability of the duty cycle crawler crane, the Finnish company again opted for Liebherr’s HS series. Takanen emphasizes their diverse range of applications. In addition to dynamic soil

compaction, it deploys the duty cycle crawler crane for grab or dragline operation, as well as for lifting work. In Jätkäsaari the HS 8130 HD underlines its qualities with a low fuel consumption of only 34 l/h.

Technical Data – HS 8130 HD:

Engine power:	505 kW
Max. lifting capacity:	130 t
Min. transport width:	3,500 mm
Min. transport height:	3,520 mm

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