



Job report

Economy all the way

Automatic engine stop control and
Kelly visualization

LIEBHERR

Customer service

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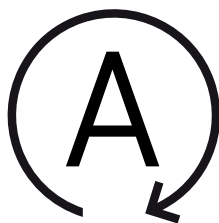


Task

The construction company Arconsa - Arquitectura y Construcciones SA is building an apartment complex in La Estrella, close to Medellín, Colombia. Five buildings, each with 60 apartments are being erected on an area of 15,000 m². To prepare the building ground for the project, 70 partly cased piles, each with a diameter of 1200 mm and a depth of 38 m had to be installed. As is the case in most jobsites in this area, hard rock predominates the prevailing ground conditions. The construction company Arconsa knows the ground conditions and selected a Liebherr drilling rig type LB 36 fitted with a BAT 410 rotary drive and Kelly drilling bucket to complete the task.

Software solutions

On site, the Liebherr LB 36 has a certain amount of waiting time during a normal working day. Time when the engine is idling but nevertheless running. This is where Liebherr's automatic engine stop control comes into play.



This software switches the engine off automatically during longer work interruptions after having checked certain system functions including

the actual charge level of the battery and the operating temperature of the engine. It also controls that all machine functions are deactivated. This not only saves fuel but also reduces emissions. At the same time, the machine has fewer operating hours, thus increasing its residual value, extending its warranty and the maintenance intervals. A further contribution to savings without compromising performance is achieved thanks to the optimum maximum engine speed of 1700 rpm.

Not just fuel reductions

One of the challenges faced by the machine operator when using the Kelly drilling method is the precise locking of the telescopic sections of



the Kelly bar. Since the operator cannot see the locking profiles, the task is tricky and time-consuming. Should the bars not be precisely locked, performance is affected and, additionally, the wear and tear of the Kelly bar itself is considerably increased.

Thanks to the real-time display of the locking recesses of the Kelly bar on the cabin monitor, the operator is permanently informed of the actual distance to the next locking recess. Colour indications inform when the bar can be locked. Furthermore, false positioning of the Kelly bar during the shake-off process is indicated through a warning signal upon misapplication.

Automatic engine stop control and Kelly visualization are just two of a wide range of software solutions available from Liebherr, which can be easily retrofitted in most Liebherr deep foundation machines and provide considerable savings with regards to time and money, as well as emissions.



La Estrella,
Colombia

“We are very satisfied with the results achieved with automatic engine stop control. We are saving 6 litres of diesel per hour (1.6 gallons) on the jobsite since installing this software.”

Laura Echeverría,
Project Manager Terraverde, Arconsa

“I don’t lose time trying to find the lock on the Kelly bar because I can find the exact point using the monitor in the cabin.”

Freddy Comas,
Machine Operator, Arconsa

Liebherr Transform



Liebherr Transform maintains your machine in its original top form through complete or partial machine overhauls. It helps you to keep ahead of changing demands due to stipulations or evolving market demands through a wide range of upgrades. It brings the latest technologies to your existing Liebherr machines thanks to innovative retrofits. Liebherr Transform makes your machine stronger, faster, smarter, greener, and ultimately... better.



Video