

Endurance Test in South America: Special Machine Operator Masters the Most Difficult Conditions

- LB 36 and LRB 355 drill 57,000 m piles
- Kelly drilling and full displacement drilling
- Development of 230 km road network including 16 bridges

Nenzing (Austria) October 2018 - In order to improve the infrastructure in Colombia, EUR 176 million are being invested in the development of road networks between Mosquera and Balsillas. The contractor Mincivil S.A. is successfully using Liebherr equipment to carry out the deep foundation work. What makes it so special is the small surprise upon opening the cabin door of the LRB 355.

Visible from afar as it is the largest of its kind: the piling and drilling rig LRB 355. Daniel lets his gaze wander over the job site. He smiles, "Only Liebherr comes into consideration with such hard soil conditions."

As part of a construction project the infrastructure, especially for freight traffic, is being improved between the Departamentos Tolima and Cundinamarca, two political administrative districts in Colombia. The work is being carried out between January 2016 and December 2021. It involves the development of the road network from Mosquera to Balsillas, which lies 230 km to the south-west. The project also involves the construction of 16 bridges, achieving an improved link between Tolima and Cundinamarca.

Mincivil, contractor of the project together with Topco S.A., is using deep foundation machines from Liebherr to install the piles for the bridges. Piles with diameters of 1500 mm down to depths of 26 m were made by the drilling rig LB 36 using the Kelly drilling method, and piles with diameters of 600 mm and depths of 33 m were made by the piling and drilling rig LRB 355 using full displacement drilling equipment. By the end of the work the Columbian company had drilled a total of 57,000 m into the deep. While the LB 36 completed its work in December 2017, the LRB 355 will be operating until March 2019.

The deep foundation specialists from Mincivil are located in Cundinamarca, Antioquia and Boyacá. Daniel Rodriguez is Foundation Unit Business Manager. He is at a construction phase in Mosquera, nearly an hour by car from Bogotá, and explains that the soil is so hard there due to the nearby mountains. "These are difficult conditions and a real challenge for the machine." In order to work efficiently under such conditions the choice of drilling machine plays a decisive role. With a glance at the LRB 355 Daniel indicates which solution he found for this problem.

Unique Throughout the Whole of Colombia

On looking closely at the piling and drilling rig there is a surprise. A young woman smiles from the operator's cabin: Thirty-two-year-old Adriana Gómez Beltrán has been machine operator on the LRB 355 since January 2018. The first woman in the whole of Colombia to take the controls of a drilling rig. And probably one of only a few in this branch worldwide. Daniel is impressed with her! She masters the difficult conditions well. Adriana has passed the endurance test with the LRB 355!

The company Gravillera Albana S.A., part of the same group as Mincivil and Topco, is supporting a special programme for single mothers (cabeza de familia). In this way, management want to specifically motivate women to show their strengths. And, as can be seen with Adriana, with success! For the previous 5 years, Adriana operated a digger with much commitment and ambition. That's why she is exactly the right person to operate the large piling and drilling rig belonging to the LRB series.

Captions

liebherr_lrb355_mosquera_1.jpg Mincivil applies the LRB 355 for installing the bridge piles in Mosquera.

liebherr_lrb355_mosquera_2.jpg The LRB 355 delivers high performance even under difficult conditions. liebherr_lrb355_adriana_1.jpg The first Columbian female machine operator to take the controls of a piling and drilling rig: Adriana Gómez Beltrán

liebherr_lrb355_adriana_2.jpg Adriana has a close eye on the full displacement drilling equipment.

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