

Enormous increase in lifting capacity through new boom variation from Liebherr

- Liebherr manages to upgrade performance of LR 1750/2 and LG 1750
- Wind turbines with a hub height of up to 166 metres can now be erected
- VarioTray saves time-consuming ballast addition and removal

Ehingen / Donau (Germany), 28 July 2017 - The latest development from the Liebherr crane plant in Ehingen is both innovative and sustainable. The engineers from the Swabian crane manufacturer have taken a quantum leap forwards with the SX boom systems for crane models LR 1750/2 and LG 1750. The improved lifting capacity values resulting from the reinforced lattice booms enables the 750-tonne cranes to lift weights normally reserved for the next higher class of crawler cranes with a 1000-tonne lifting capacity.

The continuing boom in the market for wind turbines will be the main application for this visionary new development. As the turbine systems continue to grow taller and taller, Liebherr has achieved a massive increase in the lifting capacity values of its LR 1750/2 and LG 1750 crane models due to this new boom modification. The reinforced lattice boom system enables the cranes to erect turbines with a hub height of up to 166 metres. Components with a weight of up to 127 tonnes can be assembled at that height using the SX3 version. Depending on the boom system and hoisting height, the new development means an increase in lifting capacity of up to 30 percent.

The SX system with its 3.5 metre wide lattice boom sections can be extended by the SX2 and SX3 versions. With these, two or three 14-metre long lattice boom sections with a width of six metres are fitted to the lower section of the main boom. These wide boom sections each consist of two halves which can be bolted together at the centre. To transport them, the individual halves are slightly offset longitudinally and then joined so that they mesh together like gear wheels. This ensures a practicable transport width of 3.5 metres.

The first cranes with the reinforced boom have been in action for several weeks and have proved themselves in practice. Hüffermann Krandienst based in Wildeshausen near Bremen received one of the first LR 1750/2 cranes with the SX2 system in May. The crawler crane's first job was at Siggelkow Wind Farm in Mecklenburg Western Pomerania where it erected three Enercon type E-101 systems with a hub height of 135 metres.

Hüffermann, which has not previously operated crawler cranes, decided last year to purchase the improved LR 1750/2. "It is important that we have the right equipment to be ready for future business opportunities such as wind energy. We now believe that we have reached that position with the SX2 boom system which enables us to achieve the performance of 1000-tonne class cranes", says Managing Director Daniel Janssen about the new purchase.

VarioTray saves time-consuming ballast addition and removal

Another innovative feature of the crane ensures a major saving in time when working at a wind farm – the VarioTray. This splitting derrick ballast means that the fully packed ballast tray only required to erect the boom of the crane does not have to be removed for the erection of the wind turbine. Furthermore, it is available at all times for lowering the lattice boom. With VarioTray only the central section of the ballast is unbolted and is then suspended with a maximum of 125 tonnes fitted to the derrick boom.

"We only need 110 tonnes of VarioTray ballast for hoisting the generator with a gross weight of 92 tonnes, the heaviest part of the system", explains Hüffermann's crane driver Heiner Kluck. Along with his colleague Sven Jakobs, Kluck controls Hüffermann's new crawler crane. Until recently he worked in the driver's cabin of Liebherr mobile cranes. "Of course this is on a whole different level and you'd think it would take a lot of adjustment. But actually I didn't find it difficult to switch at all", is how he describes his transfer to the large crane. His summary after ten weeks: "The crane is fantastic to control and also very sensitive and precise. I'm very satisfied with it."

Captions:

liebherr-lr-1750-2-sx-hueffermann-1.jpg

Machine house on the hook: the LR 1750/2 from Hüffermann Krandienst working with the SX2 boom version. The two extended mast sections on the main boom massively increase its lateral stability.

liebherr-lr-1750-2-sx2-hueffermann-2.jpg

Pioneering: wind turbines with a hub height of up to 166 metres can be erected with this newly developed boom.

liebherr-lr-1750-2-sx2-hueffermann-3.jpg

Unbolted: the new VarioTray derrick ballast version saves on time-consuming ballasting.

liebherr-lr-1750-2-sx2-hueffermann-4.jpg

Relaxed: Sven Jakobs works hand in hand with his colleague Heiner Kluck in the large driver's cabin of the new crane.

liebherr-lr-1750-2-sx2-hueffermann-5.jpg

Calm: the less windy hours of the night often have to be used for the hoisting work.

liebherr-lr-1750-2-sx2-hueffermann-6.jpg

Massive: the hook block with 2x2 rollers weighs in at ten tonnes and is designed for loads of up to 160 tonnes.

liebherr-lr-1750-2-sx2-hueffermann-7.jpg

Impressive: the three metre wide pivot section on the main boom is extended to six metres by the SX2 system.

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Published by

Liebherr-Werk Eching GmbH

Eching / Donau, Germany

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