

CONSTRUCTION

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CREW OVERCOMES TERRAIN CHALLENGES AT TURBINE INSTALL



“From the factory to the work site – putting a crane to work can’t get any faster than that,” said Frank Stempel, who is responsible for the large cranes operated by Berlin-based crane service provider Mobi-Hub. His comment refers to the company’s new Terex® CC

2800-1crawler crane, which was taken directly from the manufacturer’s facilities in Zweibrücken to a work site near Koblenz, Germany in order to erect an ENERCON wind turbine.

While the crane was on its way from Zweibrücken to the

Rhineland, 31 heavy haulage vehicles were also traveling from Berlin to the work site, carrying all the components that would be required for the project. A series of challenges awaited the team at the site: The space available there was extremely limited because the

wind turbine was being erected right in the middle of a forest and the path that had been cleared for the vehicles was relatively narrow. In addition the crane's boom, which had a total length of 492 feet, had to be assembled on sloping terrain. This also proved to be challenging for the assist crane required for the assembly operation, as it could not be placed just anywhere on the steep terrain. "On top of that, we had to use the suspended superlift tray with a weight of 358 tons when erecting the boom," says Frank Stempel when describing an additional challenge that the team faced at the tight work site. Despite all this, the team was able to set up the crane with six assembly technicians and have it ready to go in only two days. The crane's ease of assembly made it possible to quickly set up the machine despite the series of adverse circumstances. Moreover, the Mobi-Hub team was assisted by Terex service technicians while setting up the crane, as it was the first time the company was using the crane model.

SUCCESSFUL DEBUT

"It was a sheer stroke of luck that we were able to pick up the CC 2800-1 crane in Zweibrücken right when we needed it, as it definitely proved to be the perfect machine for the job," says Frank Stempel. This was not only because the Terex crane had the required lifting capacity, but also because it is able to move while under load. In addition, its extraordinary maneuverability and precise controls also proved to be tremendously useful.

The CC 2800-1 crawler crane was set up with a 452.7-foot S7 boom, a 39.3-foot fixed jib offset by 10 degrees, and 198 US tons of counterweight, ensuring that it would be optimally configured



for the task at hand. This configuration enabled it to safely handle the three main lifts required to erect the wind turbine, which had a hub height of 130 meters, while working with working radii of 20 to 22 meters. The team estimated a total of three days for the work: On the first day, The CC 2800-1 crawler crane lifted the 52.9-ton

nacelle and the generator, which was the heaviest wind turbine component at a weight of 78.3 tons. On the second day, the rotor, weighing about 75 tons), was assembled on the ground so that it could be lifted on time on the third. This required the crane to move towards the wind turbine, with the load already rigged, on



an extra gravel path that had already been laid earlier. “The CC 2800-1 did an extraordinary job all throughout and proved that we could not have made a better decision. Not only because of the crane itself, but also because our experience with Terex has shown that we can always count on them for fast and reliable service,” Frank Stempel happily summarizes.


The Terex® CC 2800-1 lattice boom crawler crane offers a maximum 660-ton lift capacity at a 32.8-foot radius and excellent lifting capacities throughout its entire working range. Its variable superlift radius increases lifting capacities at further distances away from the crane’s base. A variety of boom configurations, including extensions, luffing jib, windmill kit, and vessel lift as well as many other modules are available to increase crane versatility.

Transportability is excellent due to the crane’s unique open-boom design. These rectangular sections do not sit as high on the trailer as competitive boom designs, and no internal cross bracing allows smaller boom sections to be nested inside of larger sections to reduce the number of trailers required for transport. The CC 2800-1 crawler crane can be equipped with the exclusive Terex Fall Protection System, winner of the 2012 ESTA Safety award, which helps keep operators safe when rigging boom sections.


Its innovative IC-1 crane control system features a touch-screen with intuitive pictorial displays for operating ease. The crane’s exclusive Quadro-Drive on-demand system improves operating versatility and allows the base to move and spin under load even on extreme sticky ground soil. ↴

— Source: Terex Cranes

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