

VANGUARD CRANE RISES TO THE OCCASION WITH FIRST GROUNDBREAKING ASSIGNMENT

Premier heavy lift and relocation specialist Vanguard, a Grindrod joint venture company, made history in Port Elizabeth in May when it used its latest major capital investment, the sophisticated GTK 1100 crane, to install a wind turbine as part of the first phase of the first commercial wind farm in South Africa.

The crane arrived in the country just in time to erect the wind turbine. "The GTK 1100 was ideally suited for this assignment and is a major breakthrough in the heavy lift crane market. It was designed to lift ultra heavy loads to extreme heights and its potential lies in being deployed in facilities such as wind turbine farms, power stations and refineries," says Bryan Hodgkinson, Managing Director, Vanguard.

The V90 2.0MW wind turbine boasts a blade diameter of 90m, a hub height of 95m weighing 97 tons and has three blades, each 44,5m wide. It arrived at Coega harbour on Saturday, 8 May 2010, upon which it was loaded onto four trailers and transported to site. Upon arrival, the wind turbine was lifted in sections, starting with the four tower sections being positioned on a pre-set platform. The nacelle and hub

were connected on the ground, creating the heaviest weight of 97 tons. It was then lifted into position as a complete unit. Lastly, the blades were lifted into position separately.

Lauded for its economical edge and extreme flexibility, the GTK 1100 features a number of unique innovations, which made it possible to complete the entire lift in just three days, excluding the preparation time.

A key benefit of the GTK 1100 is its fast set-up. Thanks to the vertical rigging of the self-erecting tower, it can be operational in just four to six hours. The crane has a small footprint of 18x18m (including the boom set-up) for a minimised job site area and its self-levelling function results in minimal ground preparation. Where other large super-lift cranes need between 20 and 40 truckloads of parts to be mobilised in order to perform such heavy lifts, the GTK 1100 only needs four.

The seventh crane of its kind in the world and the first and only one on African soil, the GTK 1100 can accommodate lifting 100 tons to heights of more than 100m and has a 56m working radius, centre operated. In addition, the crane can operate at these heights with very heavy loads of up to 100 tons without a counterweight.

As the GTK 1100 is a first for the country, Vanguard brought out a specialist from Germany to provide operational training to its staff.



The tower sections of the V90 wind turbine are lifted into position by Vanguard's sophisticated GTK 1100 crane at the Coega wind farm.