

CONSTRUCTION

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All-Terrain Crane Erects 14 Turbines at a Mile-High Altitude



The AC 1000 All Terrain Crane drives to the top of the Pretul.

The Terex® AC 1000 all-terrain crane recently proved it was virtually predestined to erect large wind turbines in hard-to-reach areas.

Before Austrian crane service provider Prangl could even begin erecting 14 turbines for the Enercon-operated wind farm site on the ridge of the Pretul mountain in Austria, it first had to get the nine-axle unit to the site.

A description of the route already had made it clear getting there wouldn't be easy. The site was at an altitude of one mile with slopes up to 18 percent. And the whole journey was made up of narrow and mostly un-

paved winding roads peppered with steep bumps and deep depressions.

Even with these adverse conditions, the Prangl team, which was performing the job on behalf of Enercon, planned for the whole climb to take no more than two hours — two and a half tops. And this despite the fact that it was the first time Prangl was using the all-terrain crane. Nevertheless, Prangl Site Manager Peter Glier was optimistic.

“The AC 1000 is designed precisely for this kind of thing,” he said. “It won't have a problem getting there.”

PERFECT DRIVE DESIGN

The Prangl site manager's confidence in the crane's abilities was not unfounded.

"Thanks to a sophisticated drive design in which every axle can be steered, our nine-axle AC 1000 is more than a match for any extreme route," said Terex Sales Manager Robert Puchner, who was present at the debut of Prangl's new crane with a fellow team member in case on-site support was needed. "On top of this, every axle has its own independent suspension, meaning that the crane can easily handle tough bumps and depressions."

Crane operator Heinz Schuller in particular said he was thrilled with the AC 1000 crane's cross-country mobility and gradeability, which he got to experience first-hand as he drove the crane to the work site in a convoy with 10 escort vehicles within one day.

"Even driving the new crane on the freeway made me realize how impressive it is," Schuller said. "Despite its size, it has extraordinary straight-line stability and excellent handling performance. And the suspension is tuned perfectly."

But the moment of truth wouldn't come until the last few miles, when it had to drive up the mountain. In addition to the numerous bumps and depressions, the winding roads also proved to be a unique challenge: Two of the passes were so narrow that it was only possible to drive through them in reverse.

The Prangl team, which has a wealth of experience with mountain projects, used a tried-and-true technique.

"Whenever we need to cross a stretch like that, we first find a maneuvering point that we can drive into and then back off from in reverse," said Peter Glier, who already has used this trick several times with his team when dealing with difficult uphill drives.

The last stretch in the route was so steep that the Prangl team set up a truck as a tractor in front of the crane out of caution.

"The engine on the AC 1000 is more than powerful enough to handle that kind of thing, so it wasn't a matter of the engine output not being sufficient," Glier said. "Instead, our concern was that the wheels could start spinning due to how steep the slope was."

Once at the top, Schuller still had nothing but good things to say.

"The AC 1000 more than proved itself," he said. "Its outstanding transmission enabled it to smoothly handle even critical situations, such as driving on steep, unpaved mountain passes."

AMBITIOUS ERECTION SCHEDULE

Once there, the actual lifts were a matter of routine for the Prangl team and its crane. After two setup days with two team members, the crane was ready to start lifting.

It was able to easily lift all steel sections, nacelles, and rotor blades — with maximum weights of 64 tons — to the required height of up to 256 feet while working with a radius of 69 feet.

Given the special local weather conditions and the small time slots when crane operations are possible, the crane — which was able to be moved quickly and with little effort — let the Prangl team achieve its ambitious schedule of erecting 14 wind turbines in three months.

The AC 1000 — as a result of its well-engineered design — demonstrates how projects can be quickly and efficiently carried out. ↴

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Alliant Energy to Invest \$1 Billion in Iowa Wind Project

Iowans will soon see a significant increase in clean, economical wind generation from Alliant Energy.

Alliant Energy CEO Patricia Kampling and Gov. Terry Branstad announced the utility will invest about \$1 billion to expand its wind-energy operations in the state.

"Our customers expect low-cost, clean energy, which is exactly what this project will bring to the communities we serve," said Doug Kopp, president of Alliant Energy's Iowa utility. "Wind has no fuel costs and zero emissions, making it a win-win for Iowans and the Iowa economy."

Alliant Energy's Iowa utility is seeking regulatory approval to expand its Whispering Willow Wind Farm in Franklin County and possibly develop wind energy in other areas of the state. The five-year project will add up to 500 MW

of clean energy to economically meet customer needs. The company is seeking approval now to maximize the value of renewable energy tax credits to benefit its customers.

The new wind project is part of Alliant Energy's vision for a clean-energy future. From 2005 to 2030, Alliant Energy is targeting a 40-percent reduction in carbon dioxide emissions. In addition, the project will generate tens of millions of dollars in property taxes and result in more than 1,500 jobs at the height of construction — boosting Iowa's economy while supporting customers seeking to use more renewable energy. ↴

Source Alliant Energy

For more information, go to www.alliantenergy.com