

INNOVATION

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XL Specialized Trailers announces new blade hauling solution

XL Specialized Trailers designed a solution for hauling longer wind-turbine blades with its new patent-pending BladeMate Flip Extension. The Extension provides significant cost savings to haulers over purchasing a new trailer.

XL's 27-foot long Flip Extension can be added to the rear of XL's BladeMate trailer or any blade-hauling trailer. The final trailer length will depend on what model the flip extension is paired with.

For example, with the addition of the Flip Extension, XL's BladeMate reaches to a length of 211 feet. When moving the empty trailer, a driver can flip the Extension up, retract the trailer, and have a 53-foot long return trip with reduced permit costs.

"As turbines get taller and the blades get longer, transporting them becomes even a greater challenge," said Rodney Crim, vice president of sales at XL. "While there are many blade-hauling trailers on the road today, few can accommodate the new, longer blades. This solution will be very beneficial to our customers because they will not need to buy an entirely new trailer to accommodate the load."

The XL Blademate Flip Extension was made to be user friendly. By moving the lever at the front of the trailer, six-inch hydraulic cylinders flip the extension up or down within minutes. The cylinder linkage can be unpinned and lowered flat to allow for more loading space on the top of the trailer.

The rear bolster at the end of the Flip Extension offers a 20,000-pound capacity, making it suitable as the



XL's 27-foot long Flip Extension can be added to the rear of XL's BladeMate trailer or any blade-hauling trailer. (Courtesy: XL Specialized Trailers)

rear-loading platform for the common two-point load set-up. The Flip Extension is secured with a lug-and-pin system, allowing the tail to be completely removed when it is not needed.

The XL BladeMate Flip Extension offers benefits to the driver even when hauling shorter blades. If the driver uses the Flip Extension instead of fully extending the BladeMate trailer, the wheelbase of the trailer is shorter and reduces the trailer's turn radius.

The XL BladeMate Flip Extension recently was introduced at the American Wind Energy Association (AWEA) WINDPOWER show in Chicago. ↗

Source: XL Specialized Trailers

For more information, go to xlspecializedtrailer.com

Ice detection system minimizes production loss, increases safety

Phoenix Contact's new wind turbine ice-detection system reduces power production loss and increases safety. The self-powered sensors used in this system transmit ice thickness and temperature information wirelessly from blade surfaces without drilling or wires.

A single receiving unit is installed in the turbine and receives information from sensing units, which are distributed over the surface of each blade. These sensing units are easy to install during regular blade inspections. Detection in a stopped rotor state allows

A single receiving unit is installed in the turbine and receives information from sensing units, which are distributed over the surface of each blade. (Courtesy: Phoenix Contact)

automatic restart to minimize power production loss.

The system also measures the direct surface temperature, ensuring precise heating control with blade de-icing systems. The Phoenix Contact wind turbine ice-detection system is suitable for new and retrofit applications and does not require integration into the wind-turbine controller. ↘

Source: Phoenix Contact

For more information, go to www.phoenixcontact.com/wind



Turbine yaw drives' power-to-weight ratio yields greater efficiency

Using unique roller gear technology, Gearing Solutions wind turbine yaw drives have an unparalleled power-to-weight ratio, achieving the industry's greatest efficiency. With aluminum housings, these proven yaw drives are up to 50 percent lighter with the smallest profile on the market, creating a premium weight-to-torque ratio. This power density makes installation and maintenance/repair much easier and faster, especially when working at height in a restricted space environment. The lighter weight also allows the Gearing Solutions yaw drive to be more responsive, quickly redirecting alignment so the turbine blades face the wind, producing the maximum amount of electrical energy at all times. These proven designs are ideal for turbines ranging in size from 10kW to 50kW, for agricultural, industrial, and home wind-turbine markets.

Despite their lighter weight, Gearing Solutions yaw drives are durable, providing years of trouble-free service. Many have been in service for five years. This longevity eliminates the emergency tower climbing to replace broken gearboxes and yields more economical power delivery.

Gearing Solutions, the creator of MaxaMin™ Roller Gears, manufactures third-generation planetary and cycloidal roller gears used in a wide variety of gearheads, speed reducers, and engineered products. Features include easily modified designs, special housing design, and manufacturing capabilities. These gears can be com-



Gearing Solutions yaw drives are durable, providing years of trouble-free service. (Courtesy: Gearing Solutions)

bined to create more than 2,500 ratios, up to 2,500:1. Rounding out the Gearing Solutions capabilities are in-house engineering, efficient prototyping, and short run capabilities. ↘

Source: Gearing Solutions

For more information, go to www.gearingsolutions.com