TITAN
TECHNOLOGIES INTERNATIONAL, INC.
SUPERIOR BOLTING SOLUTIONS

Titan AirTite® Electric Tools & Titan Hydraulic Wrenches save time, improves torque process in Wind Turbine Erection and Maintenance

Titan dealers go to new heights to solve a customers bolting problem

Titan Product Specialist Tim Hert and Titan Representative Jim Jandik recently addressed several applications at a Wind Turbine Farm in Jim's Territory. There are a substantial number of applications for the AirTite Electric as well as T-Tools and LP Tools for the GE 1.5 MW Wind Turbines. The Application Pictured is for the T-Bolts where Titan Model ATEip 2200-P16 PLUS is shown.

The Torque and Angle Capability of the Titan ATEip 2200-P16 PLUS provides quick work of the T-bolts (blade to blade bearing) to 413 ft/lbs plus 120 degrees rotation. On this turbine there are 60 bolts per blade on the inside of the nose cone.

Tim relates the story of Jim Jandik's and his day.:

First – safety training and safety harness instructions.

Second – Very Muddy ride to turbine site.

Third – Go 210 ft. straight up & climb through the center of the tower. A safety harness is attached to a cable the entire climb to insure that if you fall, the harness will catch you within 2-3 feet. Several applications at the landings are addressed with both the **Titan T-1 and Titan T-3** on the center sections of the tower.

Fourth – Reach the nacelle area, again addressing applications where the **Titan T-1 and Titan T-3** are great tools for the applications.

Fifth – sit on top of the wind turbine while tied off to the railing, just to get comfortable with where you are. While there, you can see the outer ring of bolts (blade to hub) on every blade that can be addressed with the **Titan LP-2 Low Profile Tool with 50MM Link.** The bolts are in a place that you must literally "tie off" and "hang out" over the edge to properly torque.

Sixth – Build up the courage to go into the nose cone. To do this, you must tie off to a railing and lower yourself into a trap door on the end of the nose cone between the blades. Your safety harness assures that if you slip, the fall will be short as there is nothing below except the ground, 210 feet down. Once inside the nose cone, the **Titan ATEip 2200-P16 PLUS** is used to tighten the "T-bolts". These are the inside ring of bolts that hold the blades to the blade bearings..

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