Case Study 1

Hackberry - Albany TX

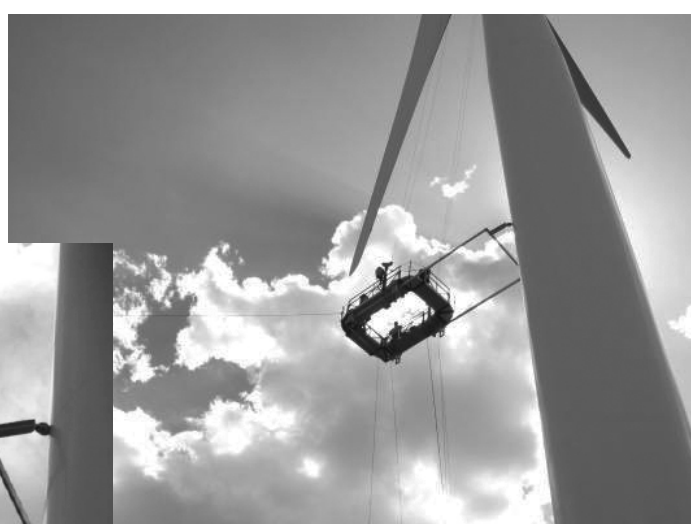
Turbine: Siemens 2.3MW

Contractors: Lankford Company Inc.

Project Scope: Access for blade inspection and repair work for Siemens 2.3 MW turbines

Challenges:
- 360 degree access needed to perform repairs at multiple locations on blade surface
- Extremely hot site conditions for uptower rigging and installation work required more active health monitoring
- Limited time schedule for the work

Solutions:
- Spider provided a 5 x 10 ft (1.5 x 3 m) configured 360 Blade Access Platform (BAP) with independent lifeline.
- With Spider's expertise in safety, rigging and training, Lankford Company was able to bring in the 360 BAP closer, could simply adjust to the larger blade tip with the manual winch, and could easily access the blade repair area.
- With the 360 BAP assembled on the ground, workers engaged the blade tip in less than 8 minutes to start the work.
- Storage buckets positioned the workers' tools at waist height for added productivity.
- With both a primary and secondary suspension wire rope to each hoist, the workers were able to attach their fall protection lanyards directly to the engineered PFAS safety anchor device on the walk-thru stirrup. This point is also engineered for use with a descent device, if users choose not to use the hoists' no-power controlled descent system.
- Compared to other equipment options, the Lankford crew was able to get working very quickly.
- Siemens recognized this platform system in its national newsletter for ingenuity in wind farm maintenance.



Have a case study you want to share? We'd love to see it

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Case Study 2

Centennial - Saskatchewan, Canada

Turbine: Vestas V80

Scope: Provide an arced access platform for 3-step repainting process on more than 100 newly completed turbine towers, damaged by a tornado.

Challenges:
- Wind farm owner very concerned about protecting his investment before additional corrosion occurred
- Extremely tight schedule to mobilize equipment
- Contractor had limited experience working with suspended access platforms
- Remote location made replacement of crew and supplies challenging

Solution:
Spider provided an angled 17 ft (5.2 m) Tower Access Platform (TAP) configured from three 5 ft (1.5 m) sections configured with independent lifelines and powered by two SC1500 hoists. A custom-engineered rigging solution was provided and Spider conducted onsite wind-specialized Competent Person Training (CPT). Redundant equipment was supplied to ensure crew productivity in the event of an equipment issue. The engineered TAP provided the load capacity and working swath to achieve the work on time, under budget.

Photos are for illustrative purposes only.

Case Study 3

AES - Condon, OR

Turbine: Mitsubishi M90

Contractor: Upwind Solutions

Scope: Blade root repair work on Mitsubishi M90 towers

Challenges:
- Tight clearance between the blade and tower
- Limited blade rotation – limited to 90 degree increments only – made positioning the blade relative to the wind more challenging and further reduced clearance

Solution:
Spider provided a 5 ft (1.5 m) Blade Access Platform (BAP) for the repair work at the root. Safety and productivity improvements included the additional stabilization against the blade with the integrated blade-capture lanyard system and removable storage buckets to hold tools and materials at waist height for ergonomic benefit and to reduce tripping hazards. With better stabilization against the blade, operators were more confident and secure in performing the work. The taglines were used to give the platform stability and to position it to engage the blade tip.

Case Study 4

Costa Rica

Turbine: Neg Micon 750 KW

Contractor: CR Corporation

Scope: Entire blade tip replacement and additional blade repair work on Neg Micon 750 KW turbine

Challenges:
- 360 degree access required with high load rating to support workers and tools
- No rigging points available on the nacelle
- Very short nacelle, making rigging points also very close to the tower
- Small tower with tight clearance
- Remote location in Costa Rica
- Crew unfamiliar with swing stage platforms

Solution:
Spider custom designed the blade access solution to ensure user productivity. The 360 Blade Access Platform (BAP) was powered with three SC1500 hoists allowing faster mobilization and more load capacity. The platform featured an alternative stirrup design to improve platform stabilization and reduce the load on the hoists. In collaboration with CR Corporation, Spider installed engineered slings on the blade root and hub to provide the rigging solution. Spider performed multiple onsite training sessions.

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