Service type
Structural blade repair

Project introduction
Structural repair of 1.8 m long blade crack on an offshore turbine

Location
Offshore South-East England

FairWind

Case study

Structural blade repair on SWT-6.0-154 MW offshore turbines

Project summary

- Appointed to carry out structural blade repair using rope access
- Conducted extensive inspection to identify damage and moisture issues
- Restored structural integrity of blades with minimal disruption to power production
- Adhered to industry-specific and regional safety standards throughout the project
- Provided all tools and materials, adopting a full-service approach
- Reduced suppliers and costs while increasing efficiency.

Detailed scope of work

FairWind was appointed to carry out a structural blade repair using rope access. An extensive inspection took place to identify all damage needed for repair on the external surface of the blades, including a moisture assessment.
We then restored the structural integrity of the blades with a swift turnaround time, minimising disruption to the wind farm power production.

Strict adherence to both industry-specific and regional safety standards was necessary, maintaining our high safety standards throughout the project timeline. All tools and materials were provided by FairWind; therefore, a full-service approach was adopted to reduce suppliers and costs, whilst increasing efficiency.

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Challenges faced

- Weather challenges affecting work schedule, with high winds and storms delaying blade repairs
- Flexibility and contingency measures in place, focusing on other tasks during weather disruptions
- Logistics issues, managing technician and equipment transfers amid delays
- Employed flexible work schedule to stay on track despite challenges.

Fairwind's blade services

Our dedicated blades department offers complete turnkey solutions, with capabilities to undertake mounting and retrofitting aerodynamic upgrades on the blades, as well as performing both surface and complex structural repairs, managing your project seamlessly from start to finish. Identifying damaged blades as early as possible allows repairs to be planned, minimising downtime of your assets.

Pictured opposite

Surface preparation of blade exterior and commencement of repair procedure

Our IRATA qualified technicians can carry out work via rope access or via our SQYflex platform.

Our decade of expertise in blade work covers:

Blade inspection

- Condition monitoring and reporting
- Inspections can be performed with drones or via rope access, depending on requirements.

Mounting of aerodynamic modifications and upgrades

- Vast experience of retrofitting aerodynamic enhancing components on numerous blade types.

Structural blade repairs

- Restoration and measurement of lighting protection systems
- Competencies to repair complex structural blade damages.

For more information, please contact
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fairwind.com