FairWind

Service type
Main Component Exchange (MCE)

Project introduction
Main bearing replacement for FairWind's MCE team

Location
United States

Case study

Replacing main bearings in storm season

Project summary

- Main bearing replacement in North America
- Full disassembly and reassembly of the drivetrain including blade and hub removal
- Coordination with crane operators and ground crew
- Work conducted during a seasonal weather window.

Detailed scope of work

The FairWind team mobilised to site with the required tooling and rigging to execute the job safely and efficiently. The scope involved preparing for removal, coordinating with crane operators to disassemble the hub and blades using two cranes, followed by extraction of the main bearing.

After installing the new drivetrain, the blades and hub were reassembled, and a 12-hour run-in test was successfully completed prior to project closure.

Continued overleaf...


1.


2.


3.


4.

Challenges faced

- **Weather delays**: high winds and storms meant the team had to wait for appropriate weather windows
- **Tight scheduling**: delays due to weather placed pressure on remaining timelines
- **Coordination of multiple teams**: crane and rigging operations required precise timing and teamwork.

Sustainability alignment

FairWind's MCE operations help prolong the life of existing turbine assets, reducing the need for new equipment production and transport. By executing component exchange instead of full turbine replacement, the environmental footprint of turbine lifecycle maintenance is minimised.

Case study highlights

- Main bearing replaced on schedule despite storms
- 12-hour run test completed after installation with no issues
- Coordination with the crane operator for a smooth project.

Pictured opposite

1. Lifting the rotor to the ground
2. Lowering the drivetrain
3. New drivetrain on trailer
4. Rotor on stand with banana beam.

For more information, please contact
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